

# **For Reference**

---

**NOT TO BE TAKEN FROM THIS ROOM**



Ex LIBRIS  
UNIVERSITATIS  
ALBERTAENSIS









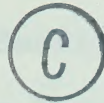






THE UNIVERSITY OF ALBERTA  
STAFFING RATIOS IN VARIOUS TYPES OF SCHOOL  
JURISDICTIONS IN ALBERTA

by



JAMES WILLIAM PAGE

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE  
OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA

FALL, 1972





THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Staffing Ratios in Various Types of School Jurisdictions in Alberta" submitted by James William Page in partial fulfilment of the requirements for the degree of Master of Education.

THE UNIVERSITY OF ALBERTA  
FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and  
recommend to the Faculty of Graduate Studies and Research  
for acceptance, a thesis entitled "Bessie Bell in  
Various Types of School Institutions in Alberta" submitted  
by James William Page in partial fulfillment of the  
requirements for the degree of Master of Education.

Digitized by the Internet Archive  
in 2021 with funding from  
University of Alberta Libraries

<https://archive.org/details/Page1972>



## ABSTRACT

This study examined the relationships between the type and size of the school system and (1) the numbers of various categories of personnel employed, and (2) the ratios of these numbers to the size of the school system. Comparisons were made between (1) a division or county and the enclosed operating districts; and between (2) designated areas encompassing two or more systems, one being a county or division, and areas which were similar in size but operated only one school system.

Data were gathered from twenty-nine divisions and twenty-nine counties. The Northland Division was omitted because of the vast territory it covers. The County of Mountainview was not included since it did not reply to the questionnaire. The school districts examined included sixteen public districts, forty-two separate districts and three consolidated districts. Questionnaires were distributed to 123 school systems. After personal interviews and telephone interviews were used in some systems to get a better and more accurate response, 119 of the systems replied. This represented 96.7 percent of the systems approached.

No evidence of any definite association was found between the size of the jurisdiction and either (1) the





number of categories of personnel occupied by staff personnel or (2) the ratio of the personnel employed per 1,000 students.

The divisions and counties tended to have personnel employed in more of the categories examined in this study than did the public, separate or consolidated districts. The staffing ratios in the counties and divisions were also found to be larger, overall, than they were in the three other types of jurisdictions. The public school districts were almost as well staffed as were the divisions or counties, but the separate and consolidated districts had either very few or no people in many categories of the staffing components.

The areas having differentiated systems and those having one integrated system of a similar size were compared. Although variations were found within each category, the mean ratios of central office staff in both types of areas were very similar. The in-school components varied somewhat more, with the differentiated areas having larger ratios in the administrative, support, guidance and secretarial categories. The areas serving more than 3,000 students had the larger total staff ratios in the integrated areas, while the areas serving fewer than 3,000 students had larger ratios of total staff in the differentiated areas.





## ACKNOWLEDGEMENTS

Thanks are extended to Mr. K. Ward for the time and supervision he rendered during this study.

The writer also wishes to express special thanks to Dr. E. A. Holdaway both for suggesting this study and for all the time, patience and supervision received.

Appreciation is expressed to Dr. J. W. Chalmers for his advice and recommendations.

Finally, the writer would like to express his thanks for the assistance rendered, the patience and encouragement given by his wife, Ruth, which made it possible to complete this study.



## TABLE OF CONTENTS

	Page
LIST OF TABLES . . . . .	x
Chapter	
1. THE PROBLEM AND DEFINITION OF TERMS . . . . .	1
THE PROBLEM . . . . .	3
Statement of the Problem . . . . .	3
Justification of the Study . . . . .	5
DEFINITION OF TERMS . . . . .	7
Administrative Staff Component . . . . .	8
Support Staff Component . . . . .	9
Psychologists, Guidance and Remedial Staff . . . . .	10
Central Office Staff Component . . . . .	10
Teachers . . . . .	11
Non-Instructional Staff Component . . . . .	11
Instructional Staff Component . . . . .	11
Total Staff . . . . .	12
Size of School System . . . . .	12
School System . . . . .	12
Staffing Ratio . . . . .	12
Type of Jurisdiction . . . . .	12
ORGANIZATION OF THE THESIS . . . . .	14





Chapter	Page
2. REVIEW OF RELATED LITERATURE . . . . .	16
Historical Overview . . . . .	16
Small School Districts . . . . .	21
Organizational Size and Administrative Ratios . . . . .	25
Organizational Size and Support Personnel Ratios . . . . .	29
Summary of Chapter Two . . . . .	31
3. RESEARCH PROCEDURES . . . . .	34
The Sample . . . . .	34
Assumptions . . . . .	35
Limitations . . . . .	36
Methods and Instruments for Data Collection . . . . .	36
Analysis of the Data . . . . .	37
Summary of Chapter Three . . . . .	38
4. PRESENTATION AND ANALYSIS OF THE DATA . . . . .	40
ANALYSIS BY TYPE OF JURISDICTION . . . . .	41
CENTRAL OFFICE RELATIONSHIP WITHIN SYSTEMS . . . . .	47
Counties Encompassing Two or More Districts . . . . .	47
Divisions Having Two or More Enclosed Operating Districts . . . . .	52
Counties Enclosing One District . . . . .	55
Divisions with One Enclosed Operating District . . . . .	58
Discussion . . . . .	60





Chapter	Page
IN-SCHOOL RELATIONSHIPS WITHIN SYSTEMS . . . . .	61
Counties with More Than One Enclosed District . . . . .	61
Divisions with More Than One Enclosed District . . . . .	64
Counties Having One Enclosed District . .	66
Divisions Having One Enclosed District . . . . .	69
Discussion . . . . .	71
TOTAL STAFF RELATIONSHIPS WITHIN SYSTEMS . . . . .	73
Counties Having Two or More Enclosed Districts . . . . .	73
Divisions Having Two or More Enclosed Districts . . . . .	76
Counties Having One Enclosed District . .	78
Divisions Having One Enclosed District . . . . .	82
Discussion . . . . .	84
SUMMARY OF CHAPTER FOUR . . . . .	85
5. COMPARISON OF AREAS HAVING DIFFERENTIATED AND INTEGRATED SYSTEMS . . . . .	87
COMPARISON OF CENTRAL OFFICE STAFF . . . .	87
Areas Serving 4,000 or More Students . .	87
Areas Serving 3,000 to 3,999 Students . .	89
Areas Serving 2,000 to 2,999 Students . .	91
Areas Serving Fewer Than 2,000 Students . . . . .	93
Discussion . . . . .	95



Chapter	Page
COMPARISON OF IN-SCHOOL STAFF . . . . .	95
Areas Serving 4,000 or More Students . .	95
Areas Serving 3,000 to 3,999 Students . .	98
Areas Serving 2,000 to 2,999 Students . .	100
Areas Serving Fewer Than 2,000 Students . . . . .	103
Discussion . . . . .	105
COMPARISON OF TOTAL STAFF . . . . .	105
Areas Serving 4,000 or More Students . .	105
Areas Serving 3,000 to 3,999 Students . .	107
Areas Serving Fewer Than 3,000 Students . . . . .	107
Discussion . . . . .	111
TOTAL STAFF RELATIONSHIPS . . . . .	112
SUMMARY OF CHAPTER FIVE . . . . .	115
6. SUMMARY AND CONCLUSIONS . . . . .	118
The Problem . . . . .	118
Examination of the Problem . . . . .	118
Findings of the Study . . . . .	120
Conclusions . . . . .	123
Implications of the Findings . . . . .	125
Recommendations for Further Study . . . .	126
BIBLIOGRAPHY . . . . .	128
APPENDIX A . . . . .	134
APPENDIX B . . . . .	152





## LIST OF TABLES

Table	Page
1. Comparison of Mean Percentages of Staff in Administrative Positions in Groups of California School Systems, and Western Canadian School Systems of Different Sizes . . . . .	30
2. Mean Numbers of Staff for Various Components in Groups of School Systems . . . . .	32
3. Summary of Total Numbers of Central Office Staff in School Systems Grouped by Type of Jurisdiction . . . . .	41
4. Comparison of Mean Ratios of Central Office Staff in School Systems Grouped by Type of Jurisdiction . . . . .	44
5. Summary of Numbers of In-School Staff in School Systems Grouped by Type of Jurisdiction . . . . .	45
6. Comparison of Mean Ratios of In-School Staff in School Systems Grouped by Type of Jurisdiction . . . . .	46
7. Summary of Total Number of Staff in School Systems Grouped by Type of Jurisdiction . .	48
8. Comparison of Mean Ratios of Total Staff Personnel in School Systems Grouped by Type of Jurisdiction . . . . .	49
9. Comparison between Central Office Staff Numbers and Ratios for Three or More Systems within One Geographical Area (Counties) . . . . .	50
10. Comparison between Central Office Staff Numbers and Ratios for Three or More Systems within One Geographical Area (Division) . . . . .	53



Table	Page
11. Comparison between Central Office Staff Numbers and Ratios for Geographical Areas Having Two Systems (within Counties) . . . . .	56
12. Comparison between Central Office Staff Numbers and Ratios for Geographical Areas Having Two Systems (within Divisions) . . . . .	59
13. Comparison of Numbers and Ratios of In-School Staff within Geographical Areas Having Three or More Systems (County Areas) . . .	62
14. Comparison of Numbers and Ratios of In-School Staff within Geographical Areas Having Three or More Systems (Division Areas) . .	65
15. Comparison of Numbers and Ratios of In-School Staff within Geographical Areas Having Two Systems (County Areas) . . . . .	67
16. Comparison of In-School Staff Numbers and Ratios within Geographical Areas Having Two Systems (Division Areas) . . . . .	70
17. Comparison of Total Staff Numbers and Ratios within Geographical Areas Having Three or More Systems (County Areas) . . . . .	74
18. Comparison of Total Staff Numbers and Ratios within Geographical Areas Having Three or More Systems (Division Areas) . . . . .	77
19. Comparison of Total Staff Numbers and Ratios within Geographical Areas Having Two Systems (County Areas) . . . . .	79
20. Comparison of Total Staff Numbers and Ratios within Geographical Areas Having Two Systems (Division Areas) . . . . .	82
21. Comparison of Numbers and Ratios of Central Office Staff in Differentiated and Integrated County and Division Areas of 4,000 or More Pupils . . . . .	88





22.	Comparison of Numbers and Ratios of Central Office Staff in Differentiated and Integrated County and Division Areas with Pupil Population 3,000-3,999 . . . . .	90
23.	Comparison of Numbers and Ratios of Central Office Staff in Differentiated and Integrated County and Division Areas with Pupil Population 2,000-2,999 . . . . .	92
24.	Comparison of Numbers and Ratios of Central Office Staff in Differentiated and Integrated County and Division Areas with Fewer Than 2,000 Pupils . . . . .	94
25.	Comparison of Numbers and Ratios of In-School Staff in Differentiated and Integrated County and Division Areas Having 4,000 or More Pupils . . . . .	96
26.	Comparison of Numbers and Ratios of In-School Staff within Differentiated and Integrated County and Division Areas with Pupil Population 3,000-3,999 . . . . .	99
27.	Comparison of Numbers and Ratios of In-School Staff within Differentiated and Integrated County and Division Areas with Pupil Population 2,000-2,999 . . . . .	101
28.	Comparison of Numbers and Ratios of In-School Staff in Differentiated and Integrated County and Division Areas with Fewer Than 2,000 Pupils . . . . .	104
29.	Comparison of Numbers and Ratios of Total Staff within Differentiated and Integrated County and Division Areas Having 4,000 or More Pupils . . . . .	106
30.	Comparison of Numbers and Ratios of Total Staff within Differentiated and Integrated County and Division Areas with Pupil Population 3,000-3,999 . . . . .	108



31.	Comparison of Numbers and Ratios of Total Staff within Differentiated and Integrated County and Division Areas with Pupil Population 2,000-2,999 . . . . .	109
32.	Comparison of Numbers and Ratios of Total Staff within Differentiated and Integrated County and Division Areas Having Fewer Than 2,000 Pupils . . . . .	110
33.	Comparison of Mean Numbers and Ratios of Central Office Staff in Differentiated and Integrated County and Division Areas . . . . .	113
34.	Comparison of Mean Numbers and Ratios of In-School Staff with Differentiated and Integrated County and Division Areas . . . . .	114
35.	Comparison of Mean Numbers and Ratios of Total Staff within Differentiated and Integrated County and Division Areas . . .	116





## Chapter 1

### THE PROBLEM AND DEFINITION OF TERMS

Morphet, Johns and Reller (1967:8) suggested that the establishment of an educational program in a society must include a plan and an organization for carrying out the plan. The organization has grown from a relatively simple one for primitive groups to a complex educational system to meet the demands of the modern society. Etzioni (1964:106) implied that the main sociological characteristic of modernization was differentiation. Brech (1965:3) noted that as organizations enlarged, the differentiation of functions within them became much more obvious.

Blau and Scott (1962:7) stated that with the increasing organizational size came an especially elaborate administrative apparatus. Boulding (1953:326-40) suggested a principle of "non-proportional change." He meant, by this, that growth of the various parts of an organization was not proportional. Boulding (1953:335) further stated that:

. . . as institutions grow they have to maintain larger and larger specialized administrative structures in order to overcome the increasing difficulties of communication . . . .

The actual effect of an organization's size on its administrative component has for some time been a matter of



concern. The findings relative to the size of the organization and the proportion of administrators show discrepancies. In a study of the four provinces of Western Canada, Gill (1967:50) found that ". . . the proportion of administrative staff in a school system decreased as the size of the system increased." Blowers (1969:156), also studying Western Canadian educational systems, concluded that larger school districts employed a proportionally smaller number of administrators than did smaller school districts. Vithayathil (1969:106) found that ". . . administrative ratios in school systems decreased as system size increased."

Contradicting these three studies conducted at The University of Alberta are the statements by Terrien and Mills (1955), and Caplow (1957). Terrien and Mills (1955:13) concluded that a direct relationship existed between the growth of the administrative component and the growth of the whole school district. Caplow (1957:502) maintained that "There is an almost universal belief that administrative and overhead components of any organization increase out of proportion to increases in its size." Parkinson (1964:24-5) quoted statistics on the British Colonial Office to support his statement that the less work there was in an organization, the greater were the increases in its administrative staff.

Though a number of studies have investigated administrative ratios within organizations, very few studies



have been conducted on the support staff component in education. The support staff includes clerical workers, secretaries and teacher aides. The Canadian Education Association (1964) conducted a study of fifty-eight urban school boards, concluding that size had little association with clerical assistance ratios. Gregory (1972:83), studying individual schools, found a significant negative correlation between the number of support personnel and the number of pupils at the elementary and senior high school level.

The inconsistencies in the results of these studies lead to questions about the ratios of the administrative and support staff to the size and type of school system throughout Alberta.

## THE PROBLEM

### Statement of the Problem

The purpose of this study was to describe the relationships between the size and type of the school system and (1) the number of people; and (2) the ratio of various components of central office, elementary and secondary school staff to the size of the school system, as indicated by the number of students, in Alberta. The systems described were:

- (1) counties and divisions having no enclosed operating school districts;
- (2) counties and divisions which have one or more enclosed





operating school districts;

(3) individual operating school districts; and

(4) collections of systems within geographic areas coinciding with the external boundaries of counties or divisions.

Subproblems. The major problem was divided into a number of subproblems. In these subproblems, the staff personnel were categorized into the following components:

(a) central office administration, (b) in-school administration, (c) total administration, (d) central office support, (e) in-school support, (f) total support, (g) central office psychologists, guidance counsellors, and remedial staff, (h) total central office, (i) teachers, (j) in-school guidance counsellors, (k) librarians, (l) in-school aides, (m) instructional staff, (n) non-instructional staff, and (o) total staff.

1. What is the relationship between the number of students in each type of school jurisdiction and the number of categories of staff in that type of jurisdiction?

2. What is the relationship between the number of personnel per 1,000 students in each specified category and the number of students in each type of jurisdiction?

3. What relationship exists between personnel ratios of central office staff, in-school staff and total staff to the size of the school system; of districts, and the county or division surrounding the district?



4. What relationship exists between the ratios of central office staff, in-school staff and total staff personnel and the number of students enrolled in the integrated and differentiated school jurisdictions which are similar in size?

Justification of  
the Study

Research to date in the area of administrative and support staff ratios has been conducted mainly among larger school systems than was used in this study. Gill (1967) examined thirty-eight school systems in Western Canada to determine the relationship between the administrative component and the size of the school system as the school system size increases. Blowers (1969) used large urban school systems in Western Canada and examined a problem similar to that examined by Gill. The second part of his study examined the growth pattern of the administrative component and the system size over a period of five years. Vithayathil (1969) studied 108 school districts in Alberta to determine the relationship between system size and administrative size. Lepatski (1970) examined large urban school systems in Western Canada to determine differences between groups of metropolitan school systems and administrative ratios. Gregory (1972) gathered data from the Edmonton and Calgary school systems to find the relationships between administrative and support ratios and the size of the corresponding school. Duboyce (1970)





studied the ratios in one district over a period of twenty-five years to determine patterns of organizational growth within educational organizations. The studies have been both longitudinal (Duboyce and Blowers) and cross-sectional (Gill, Blowers, Vithayathil, Lepatski, and Gregory) in nature.

This study was an extension of a relatively extensive study of school staffing ratios conducted at The University of Alberta. It could have implications for the school systems as they are presently organized in Alberta. Through an analysis of different types of school jurisdictions, this study tried to establish the relationship between the number of people employed, and the ratio of the number of personnel to the size of the school system for the four categories described in the problem.

The information gained about each of the systems may cause administrators to investigate alternate methods of staff utilization. The Economic Council of Canada (1970:69) stated that efficient staff utilization was one of the basic means of achieving efficiency and economy in education. Olivero and Buffie (1970:26) reiterated this point in their claim that: "What is needed in . . . education is an assesment of how educational manpower is utilized." Through the study of manpower utilization, superintendents may be able to find some useful information regarding ratios of systems of similar size which will give them some assistance in evaluating their own organizations.



The information on the varying numbers and categories of administrators in school systems of different sizes and in rural and urban school systems may also be useful to superintendents and school boards since they could use it as an indication of the minimum staff overhead needed for efficient school operation. The significance of this aspect is that they could identify similar types of systems and systems similar in size, and could examine the particular ratios with which they were concerned.

A major contribution of this study may stem from the analysis of the staff components for systems that have approximately equal numbers of pupils, but are governed by varying numbers of educational systems. Anderson and Warkov (1961:27) suggested that as size increased, the percentage of administrative personnel decreases, but "the relative size of the administrative component increases as the number of places at which work is performed increases." The findings of this study may lead to a closer examination of the organization and a possible reorganization of the present system.

#### DEFINITION OF TERMS

The personnel classification used in this study has been developed and refined through use in a series of research studies conducted at The University of Alberta. The classification of central office administrators, supervisors and directors; and that of psychology, guidance



and remedial staff are slightly different than those which have been used in previous studies of the Alberta system. This study has omitted the secretary-treasurer and his assistants and other non-educational personnel found in the central office such as data processors, transportation and plant operation personnel and maintenance personnel. The use of this classification will, nevertheless, allow an overall comparison of the research with earlier studies in the series.

#### Administrative Staff Component

Administrative staff personnel may be distinguished by the fact that they are involved in the following functions: (a) planning, organizing, directing, coordinating, and/or controlling the educational activities and personnel of the school system; (b) making key organizational decisions; (c) supervising the work of other people; and (d) working at tasks not directly related with pupils or their instruction.

The subsets of the administrative staff to be dealt with are as follows.

Central office administrative staff component. The central office administrative staff included all those who were engaged in educational administrative duties and who were based in the central office of the school system. The central office administrative staff included the superin-





tendent, the supervisors and the directors of various subject areas. The secretary-treasurer and his assistants were not included in this study.

In-school administrative staff component. Lepatski (1970:13) developed a definition of in-school administrative staff from his definition of the administrative component. This study followed his approach using all principals, assistant/vice principals, department heads, assistant department heads, subject coordinators, and business managers located in schools. These positions, as in the studies of Holdaway (1971) and Lepatski (1970) were prorated on the basis of the percentage of time spent in administrative capacities as estimated by central office.

Total administrative component. The total administrative component in a school system was the sum of the central office administrative staff and the in-school administrative staff.

#### Support Staff Component

The support staff component included those people who work with the administrative and instructional personnel performing the duties which are neither administrative nor instructional. The personnel providing support services included clerical and secretarial staff and the teacher aides. Since plant operation and maintenance, food service, and transportation personnel are often members of private



organizations contracted to perform the services, they were excluded. The support component consisted of three sub-groups.

Central office support staff component. The central office support personnel were designated as those performing the functions indicated for the support staff and who were located in the central office.

In-school support staff component. The personnel within this group performed the functions found within the scope of the general support component and were stationed at the school.

Total support staff component. The total support staff consisted of the central office support personnel and the in-school support personnel.

Psychologists, Guidance  
and Remedial Staff

The psychologists, and the guidance and remedial staff were those offering services to students who had special problems.

Central Office Staff  
Component

The central office staff component included all administrative and support staff based in the central office.



## Teachers

The teacher component included the classroom instructors in the formal subjects, the in-school guidance counsellors and the librarians.

## Non-Instructional Staff Component

Yeager (1959:6) wrote: "Non-instructional personnel are those personnel whose services are auxiliary to the instructional process but not directly related to it." That is, all central office educational administrative, support, and guidance personnel, and all administrative and support personnel based in the schools--prorated as described--comprised the non-instructional component. Omitted from this category were the secretary-treasurer, his assistants and transportation and maintenance personnel.

## Instructional Staff Component

Using the approach of Gibson and Hunt (1965:162) instructional positions were defined as all positions requiring that direct and personal services be rendered to the students in a classroom teaching-learning situation. This excluded in-school administrative staff; however, that portion of an administrator's time spent in classroom instruction was included in the instructional component. Thus the administrator who utilized seventy percent of his time on administrative duties and thirty percent for classroom instruction was allocated 0.7 full-time





equivalents for administration and 0.3 full-time equivalents for instruction. Also included within the instructional components were the following personnel found within schools--teachers, guidance counsellors, librarians, and psychologists.

#### Total Staff

The total staff included the instructional and non-instructional components within the school system.

#### Size of the School System

The size of the school system used for this study was the total number of pupils in the school system.

#### School System

For the purpose of this study, a school system referred to the discrete educational unit in any school district, county or division.

#### Staffing Ratio

Ratios of administrative, central office, support, instructional and non-instructional personnel were expressed as:

$$1,000 \times \frac{\text{Total number of personnel in the category.}}{\text{Number of pupils}}$$

#### Type of Jurisdiction

The schools of Alberta are governed by three basic types of bodies, the county, the school division and the school district.



County. A county is a local government unit responsible for municipal, school and hospital administration. It has a single council with a committee having control over each area.

School division. A school division has a number of small school districts organized into one unit for administrative purposes. This does not necessarily imply a consolidation of school plants. It is, rather, a financial consolidation with a high degree of administrative centralization.

School district. A district is an area within the province where the local school board has autonomy under the Department of Education to govern the schools within that jurisdiction. The districts used in this study were operating school districts divided into separate, public and consolidated types of jurisdictions.

Operating school district. A district which employed teachers and conducted classes for the purpose of instructing students was called an operating school district.

Public school district. A public school district is the first school system organized within an area and is established by a Ministerial Order.

Separate school district. A separate district may



be requested by a minority of people in a public district, either Catholic or Protestant. If a majority of this group votes for the establishment of this system, it will be established by the Minister.

Consolidated school district. Between 1913-19 consolidated school systems were established around a village or town. Three such districts are still in existence.

Enclosed school district. An enclosed school district is an operating separate or public system which has more than one-half of its area surrounded by a county or division.

## ORGANIZATION OF THE THESIS

The first chapter presents a statement of the problem, its subproblems, and definitions of the terms used in the study.

The second chapter includes a review of the literature related to the historical background of the Alberta educational system, to the organizational size, and especially administrative ratios and support ratios as they pertain to the educational organization.

The sample, research procedures, methods, and instruments used for data collection, and the descriptive statistics to be used in this study are described in Chapter Three. The assumptions and limitations of this





study are also outlined in Chapter Three.

Comparisons of the numbers and ratios of personnel, in county or divisional systems, to the enclosed districts are described in Chapter Four. These comparisons are made at the central office level, the in-school level and the total staff level.

Chapter Five uses the number of personnel, and the number of personnel per 1,000 students, in specified categories to compare geographical areas having similar student populations. These areas differ in that some have integrated educational systems and the others have a number of differentiated educational systems.

Chapter Six contains the conclusions of the study, the implications for practice and recommendations for further study.



## Chapter 2

### REVIEW OF RELATED LITERATURE

Campbell and others (1970:253), in describing the American educational scene, suggested that as schools inevitably take on more diverse functions, the school organization will become more complex. They contended that this complexity would be due in part to an increase in size. It was their belief that there would be fewer districts, as small rural school districts gave way to large consolidated districts and the urban districts grew. Loken (1970:205) claimed that the orientation of the society generated the organization which determined the actual operation of the schools for a period of time: with the tremendous increase in urban population would undoubtedly come a changing emphasis on educational organizations.

A brief historical resumé of the development of educational systems in Alberta is included. Some of the aspects of small school district organization are discussed, followed by an explanation of some of the studies which have investigated organizational size and administrative and support ratios.

#### Historical Overview

The Department of Education (1940:5) reported that



the first school districts were established in Alberta with the first settlements. From that time to the present, districts have had unequal abilities to support their educational programs. It was further stated that (1940:5):

The . . . outcome was large districts comprising good land with low rates of taxation and at the same time small districts comprising poor land with high rates of taxation.

Loken (1970:205-8) reported that the arrangement of having one school district per settlement often resulted in these being denominational schools. In 1885, provision was made for public schools. In 1905, with the establishment of the Province of Alberta, The Alberta Act guaranteed denominational school rights to both Roman Catholic and Protestant minorities. This guaranteed the right of separate school systems for minorities in the Province of Alberta.

By 1913 the Government of Alberta realized the plight of some of the school districts which had been established in the province. A statute was enacted to provide for the consolidation of school districts. The Dominion Bureau of Statistics (1966:41) stated that the consolidated districts comprised from two to five of the previously existing districts. Local school boards ceased to function and each district elected a trustee to the consolidated district board. Chalmers (1967:177) wrote that: "In 1915 and 1916 the school consolidation movement swept across Alberta like a prairie fire." Following 1919





the movement faltered. The increased taxes--due to extra building costs, high salaries and transportation--became an insurmountable burden for the newly formed districts to bear. Only a few managed to survive the test of time. At the time of this investigation (1972) only three of these consolidated school systems were still in operation.

In 1935, with the election of a new government, Social Credit, a new scheme of educational organization was devised. Fuchs (1943:506) reported that an amendment to the School Act was passed which:

. . . gave the Minister of Education power to constitute any two or more school districts into a union of school districts and provided that the affairs of these united districts be administered by one board.

Fenske (1968:114) stated that the boards of rural school districts could initiate the formation of the new school unit. However, the School Act gave the religious minority, either Protestant or Roman Catholic, the right to form a separate school district.

The Department of Education (1940:8-9) made a divisional board consisting of five members, one from each of five subdivisions constituting the larger unit, responsible for staffing the schools and financing their operations. The board of each local district continued to function with its responsibility limited to local matters. Since that time, more restrictions have been placed on the power of the local school board.

Even though the implicit idea behind the divisional



system might seem to be one of consolidation of facilities, Gilles (1942:3) stated that there was no implication of physical consolidation of school plants. The arrangement was to facilitate a financial and administrative consolidation.

Though a divisional system of education had many advantages such as a more diversified high school program (The Department of Education, 1945:10), and an equalized mill rate (Fuchs, 1943:507) the problems mentioned above were not all solved. Chalmers (1967:294) stated that from the very beginning tension existed between school and municipal authorities. The councillors resented having no alternative but to pay the amount requisitioned by the school authorities. Chalmers (1967:294) suggested that the feelings of many people were : "If the councillors were in charge of education, . . . things would be different and less expensive."

Chalmers (1967:294-96) believed that the feeling among councillors and some of the public influenced the government to the point of introducing the County Act in 1950. This established a new administrative unit which combined municipal, school and hospital administrative functions. The Department of Education (1950:7) reported that the governmental structure was to consist of:

". . . a single council with subsidiary committees, having jurisdiction in all three areas."

Some people opposed the county system of education



on the grounds that education would be relegated to a secondary position. The Department of Municipal Affairs (1971:18) reported that these fears have proven groundless and that:

Having the two bodies [municipal and school administration] join forces . . . is a step of major significance because it gives members of each a chance to become familiar with their broader responsibilities.

Even though centralization has been encouraged in Alberta through the establishment of the divisional and county systems of education, numerous districts still remain. These operating districts are one of two types, either a public school district or a separate school district.

The public school district is always the initial district established. A Ministerial Order as set out in Section 14 of The School Act, 1970, established the public district and it can be either a Protestant or a Roman Catholic Public School District. In order to establish a separate school district, a minority of electors, either Protestant or Roman Catholic, has to secure a majority vote at a meeting as authorized by Section 50 of The School Act, 1970. The Minister then, by order, established the separate school district with the same boundaries as those of the public school district. The School Act, 1970, (1970:24) declared that once this was established,

. . . a person residing within the boundaries of the separate school district who is of the faith of those who established that district, either Protestant or Roman Catholic, is a resident of the separate school





district and a separate school supporter and is not a resident of the public school district or a public school supporter.

These numerous forms of educational governance have brought Alberta to the present educational scene. Within the province can be found forty-six operating separate school districts, thirty operating public school districts, three operating consolidated school districts, thirty counties and thirty school divisions as well as a number of legal school districts which no longer themselves provide instruction for students. However, Loken (1970:216) stated that:

The steadily increasing number of counties would seem to indicate that these will eventually displace the school division. In fact, most of the major areas of rural population tend to be covered by the county form of organization at this time (1970).

### Small School Districts

The multiplicity of small school systems found in Alberta is not unique to Alberta, nor is it to Canada. The basic Canadian educational system parallels, rather closely, the American system in this aspect of organization. Byrne (1957:32) stated that: "In both province and state . . . the ultimate decisions affecting the control of the schools lie within the prerogatives of provincial and state legislatures." With the similarities between the organizational aspects of the two systems, the descriptions of the advantages and disadvantages of one system could apply equally well to the other system. The



following criticisms of the American small school districts, then, would apply equally to the small Canadian school districts.

Morphet and others (1967:263) stated that the local school districts in the United States had been ". . . established by the state for the local organization and administration of schools." In this decentralized system a school board or a single officer had responsibility for, and often considerable control of, the organization and the administration of the schools within that jurisdiction.

It was suggested by Morphet and others (1967:265) that this type of local school district organization developed from the "political philosophy and geographic circumstances of the growing nation." They further contended that such an organization often required many of the districts to operate with extremely limited resources for the purpose of developing educational programs such as educational television, programmed learning, research and development and many other programs which might be needed for the area.

The limited resources intensified the problems facing the small school districts because of their domesticated nature. Morphet and others (1967:266) believed that the "domesticated organization," one of which was the local school system, was slow to change. Campbell and others (1970:98) stated that: "The existence of hundreds of small,



inefficient districts is testimony to the fact that legislators have been slow, in many states at least, to reorganize their districts.

It was the belief of Campbell and others (1970:100) that the small districts, "those that have few pupils enrolled and inadequate resources," were usually found in small areas. These areas resisted change in order to resist tax increases, to maintain home rule, and to maintain an educational standard which many people did not realize was inferior in quality to that being offered in other areas. Morphet and others (1967:266) suggested that the results of efforts to provide educational opportunities, to avoid the duplication of services, and to facilitate articulation between grade levels have caused larger districts to be formed. They reported that (1967:267):

Increasingly the fact has been recognized that only districts of sufficient size and ability to attract, support, and retain competent educational leadership are actually able to exercise local control of their school systems.

Morphet and others (1967:270) reported that research showed that reasonable economy of scale could not be attained in districts with a school population of less than 10,000 students. In districts of less than 1,200 pupils, they contended unit costs became so great that opportunities could seldom be provided. They concluded that the minimum school district size should be 10,000, except in very sparsely populated areas where it would be no less than 5,000. Their belief was that an elementary school system





should be large enough to warrant at least two teachers per age group and a junior and senior high school should have at least 100 pupils per age group. Nevertheless, Morphet and others (1967:270) warned that ". . . size does not assure effectiveness; it only makes it possible when other conditions are favorable."

In their study of small school districts in California, Morphet and Ross (1961:23, 33) found that one of the most serious shortcomings of the small districts was that they ". . . are not expected to assume full responsibility for the nature and quality of the educational program." Through the same study they found that ". . . local responsibility and control in small school districts is not as complete or vigorous as has often been assumed . . . ." Campbell and others (1970:109) suggested that the future of local school districts depended upon the ability of the local school districts to carry the burden of responsibility.

Lieberman was more pessimistic about the future of the local school system than were either Morphet and others or Campbell and others. Lieberman (1960:34) has charged that:

Local control of education has clearly outlived its usefulness on the American scene. Practically, it must give way to a system of education controls in which local communities play ceremonial rather than policy making roles. Intellectually, it is already a corpse.

Campbell and others (1970:115) concluded that:



. . . the locus of school control in the future must be dependent upon the structure of government which can most successfully translate this informed public will into effective public policy.

In order to accomplish this end there must be viable alternatives offered for the small school districts. Morphet and others (1967:282) declared that these persisted to exist for reasons such as the belief by the people that they had closer contact with the schools in small districts; the unwillingness of boards to give up their "power"; the fear that the local school would be disbanded and the fear of loss of status by local school administrators.

#### Organizational Size and Administrative Ratios

Sparby (1960:64) suggested that the number of administrators needed within a school system depended upon a number of factors which could vary from system to system. He stated that among these variables:

The size of the system is perhaps the most weighty factor but there are also others such as the nature and extent of the educational service which the system desires to offer, the size of its schools, and the ability of the individual staff members which it employs.

Blau and Scott (1962:226) suggested that many believed that large organizations tended to be over-bureaucratized: by this they meant that an increase in organizational size resulted in a disproportionate increase in the administrative staff. Parkinson (1964:20) stated this even more emphatically when he declared that



". . . administrators are more or less bound to multiply . . ." regardless of the organization's growth pattern.

This speculation has not been verified in studies concerned with organizational size and administrative personnel. However, a number of researchers have found supportive evidence for the statement. Caplow (1957: 484-505), in a longitudinal study of American industrial firms, found that the proportion of workers not directly engaged in production increases with the size of the organization.

In two studies of educational institutions the same conclusions were drawn. Terrien and Mills (1953:13) studied California school districts and found that in all three types of districts, elementary, high school and unified, the administrative component of the organization rose from small through medium to large system size. Carlisle (1968:67-9) also studied the California school districts, and found that the relative number of personnel allocated to the administrative component increased with size over time, but suggested that this resulted from increased specialization of job functions and complexity.

Though these researchers have found substantiating evidence for the claim that administrative ratios increase with increasing organizational size, evidence has also been found to the contrary. In a longitudinal study of American manufacturing industries, Melman (1951:62-112)





found the relationship between organizational size and the administrative component to be an inverse one. Bendix (1956) conducted a similar study in Germany and found similar results.

Anderson and Warkov (1961:23-8), in a study of forty-nine veterans' hospitals, found an inverse relationship between the size of the hospital and the percentage of personnel in administration; but a direct proportion between the size of the administrative component and the number of places at which work was performed. Rushing, (1967:273-95) in studying forty-one industries of the United States, stated that (1967:288) :

Industry size and relative numbers of administrative personnel are inversely related, not only for all 41 industries, but for the 20 industries with the highest division of labor and the 21 industries with the lowest division of labor.

Tosi and Patt (1967:164-8) studied the administrative ratios in thirty-six United States Army hospitals and concluded that administrative ratios decreased as organizational size increased.

Haas and others (1963:14), through an analysis of thirty organizations, found that "the percentage of personnel engaged in supportive activities actually decreased as organizational size increased." They found this relationship to exist across organizational type.

Hawley and others (1965:252-5) found that the ratio of administrators to faculty tended to decline as the size of the faculty increased. Contrary to the findings of



Anderson and Warkov (1961) they found that these ratios declined as complexity increased. They suggested that faculty size is the most important variable and that such factors as complexity, budget, and quality have inconsequential effect.

Indik (1964:301-12) studied five different organizations and found that in each the supervision ratio decreased as the size of the organization increased. Reiss (1970:28) concluded that "the size of the organization alone does not account for the size of its administrative component." He speculated that the irrationality of the organization, the administrative style, the wealth of the system, and factors involved in Blau's "Formal Theory of Differentiation in Organizations" all affect the proportion of the administrative component.

Hall and others (1967:903-12) in a study of seventy-five organizations suggested that the relationship between organizational size and other structural components of an organization are inconsistent.

Organizational size in the educational systems of Alberta has received considerable attention in recent years. Cross sectional studies at the school system level completed by Gill (1967), Vithayathil (1969) and Lepatski (1970) support the contention that there is an inverse relationship between the size of an organization and the administrative ratio.

Blowers (1969) and Duboyce (1970) in longitudinal



studies came to the conclusion that the administrative staff decreases as the system size increases. Table 1 shows the results of some of these studies.

#### Organizational Size and Support Personnel Ratios

Holdaway (1971:31) reported that the larger school systems tended to have proportionately more staff in areas other than administration. Larger percentages of staff were found in the central office, support and total non-instructional components. In spite of the varying definitions of the term "support staff," other studies can be compared with this statement.

Baker and Davis (1954) after studying Ohio manufacturing firms found that certain "staff" or supportive activities showed larger increases in size than did other areas of activity during the time the organization increased in size.

Rushing (1966:106) suggested that "paper work" and the "process of indirect communication" increase with increasing size. This, he suggested, is indicated by the positive relationship between the size of the firm and the number of clerical personnel.

Haire (1959:297) studied four manufacturing firms and found that: "The total number of clerical workers does increase as the company increases . . . . In general as the companies went from 40 to 80 employees the clerical staff doubled." His explanation is that: "They are a part





Table 1

Comparison of Mean Percentages of Staff in Administrative Positions in Groups of California School Systems, and Western Canadian School Systems of Different Sizes<sup>a</sup>

Researcher	Group	No. in Group	No. of Prof. Employees	Admin. Component-Mean %	Std. Dev.
Gill <sup>b</sup>	small	18	47- 248	10.7	2.3
	medium	12	252- 761	8.6	1.2
	large	7	1026-3099	6.7	1.3
Blowers <sup>c</sup>	small	16	56- 185	9.61	2.49
	medium	13	267- 616	8.57	2.33
	large	12	904-3700	6.88	1.55

<sup>a</sup>Obtained from Duboyce (1970:23).

<sup>b</sup>Obtained from Gill (1967:46).

<sup>c</sup>Obtained from Blowers (1969:69).



of the general function of control, coordination and communication which increases rapidly as the size increases."

Carter (1968) and Lepatski (1970) both support the findings of Haire. Lepatski (1970:125) in studying twenty-one school systems in Western Canada found significant positive correlations between the percentage of personnel in all supportive categories and each measure of system size used. (See Table 2.)

Blau and Scott (1962) and Gregory (1972) found results which were in contrast with the above findings. Blau and Scott (1962:210) found that "the proportional size of any supportive service provided by a distinctive minority of the majority work force is likely to decline with increasing organizational size." Gregory (1972:93) concluded likewise, for individual schools, that "the number of support personnel per 1,000 pupils correlated negatively and significantly . . . with the number of pupils at the elementary and senior high school grade levels."

### Summary of Chapter Two

The educational system of Alberta consists of districts--separate, public and consolidated--divisions and counties, all of which operate schools. This variation in educational governance has been the result of legislation allowing for new forms of governance but not making it compulsory. This arrangement has caused systems to develop having sizes ranging in enrolment from



Table 2

Mean Numbers of Staff for Various Components<sup>a</sup>  
in Groups of School Systems

Group	No. of School Systems in the Group	Size Range of Group (no. of pupils)	Support	Non- Instruc- tional
<u>Mean number of staff per 1,000 pupils</u>				
1	8	3,034- 7,016	11.43	16.40
2	5	8,173-15,853	12.02	16.80
3	6	19,208-32,470	12.34	16.42
4	2	48,106-75,007	16.71	21.45

<sup>a</sup>Part of a table from Lepatski (1970:68).





approximately 25-80,000 students.

The size of school system has caused some concern both in the United States and Canada. Morphet and others (1967) suggested a school system should not be less than 5,000 students even in the most sparsely populated areas. They contended that systems of less than 1,200 students should not be considered.

Despite the range of definitional differences among studies, an inverse relationship between relative administrative size and organizational size is generally supported. The disagreements in the educational studies, however, cannot be overlooked.

The results of the studies done on support personnel in education show inconsistent conclusions about the relationship between support personnel ratios and the size of the containing organization.



## Chapter 3

### RESEARCH PROCEDURES

This chapter contains a description of the sample, the assumptions and limitations of the study, the methods and instruments used for the data collection and the statistical procedures which were used to analyze the data.

#### The Sample

The population proposed for this study consisted of every county and division in Alberta, with the exception of the Northland School Division, and every operating school district enclosed by these areas that was under the control of the Department of Education. Since the purpose of this study was to describe relationships between divisions or counties and enclosed districts, the four large city districts and the seven town-rural districts west of the county and division borders were not included. These are listed in Appendix B. The Northland School Division was omitted because of the vast area it covers and the special problems encountered in the northern areas.

The only other districts in Alberta which were omitted from the sample were four Department of National Defence Districts, four National Park Districts, and two Federal Experimental Stations. The exclusion of these



districts can be justified on the basis of the Federal involvement in their educational systems. The elimination of the divisions, counties and districts described above gave a total sample size equal to forty-eight percent of the students in the Alberta Separate and Public schools.

A total of 123 eligible school systems were approached for information included in this study. These included twenty-nine divisions, thirty counties, forty-three separate districts, eighteen public districts and three consolidated districts. Of these, 119 responded including all 29 divisions, 29 counties, 42 separate districts, 16 public districts and all 3 consolidated districts. The systems that responded constituted about 96.7 percent of those approached, and contained about 97.5 percent of the students in the population. The percentage return for this study was so high that the characteristics of the sample could be considered as being the characteristics of the population.

### Assumptions

The validity of the study depended upon the accuracy of the information received from the superintendents and/or other officials. The assumption was made that the superintendents and/or other officials correctly interpreted and clearly understood the nature of the information required, and that they supplied complete and accurate data. A further assumption made was that the description





of the administrative officials was perceived in a similar manner by all who were supplying information.

### Limitations

This study was purely descriptive in nature. It was cross-sectional and as such did not provide growth patterns, but provided a description of a situation at a given time. This study was further limited in that the ratios pertained only to the school systems in Alberta; and did not include (1) the city districts of Calgary and Edmonton, (2) the Northland School Division and the enclosed districts; and (3) the districts outside county or divisional boundaries.

The final limitation of this study is that it dealt with only certain aspects of an organization, namely administrative and support ratios and used only one measurement of organizational size--the number of pupils in the school system--as a standard for comparison.

### Methods and Instruments for Data Collection

The superintendents and/or other officials in each school system in Alberta were asked to supply information for the school year 1971-72. The information required of each school system for this study was: (1) the number of pupils, teachers, guidance counsellors, librarians and in-school aides; (2) the positions and numbers of administrative personnel in central office and in schools



and the percentage of time spent at administrative and instructional duties for those administrators who spent time in the instructional role; (3) the positions and numbers of support personnel located in central office and in schools; and (4) the number of psychologists, guidance personnel and remedial staff located in central office.

A questionnaire (see Appendix) was used to collect information for a larger study being conducted at The University of Alberta as well as for this study. Personal interviews were conducted with a representative sample of the superintendents and/or other officials of many of the school systems to discuss the project, to answer any questions that may have arisen regarding terminology and the accumulation of the required data, and to assist in extracting some data. While the data were being interpreted, many superintendents were contacted by telephone to ensure the accuracy of the replies.

### Analysis of the Data

The raw data received from the superintendents were used as the basis for this analysis. The data were divided into sixteen variables according to personnel classification and five variables according to the type of jurisdiction or area. The sixteen personnel classification variables were divided into three subgroups--(1) central office, (2) in-school and (3) totals. Within the central office subgroups were these categories: (1) educational



administrators, supervisors and directors; (2) psychological, guidance and remedial staff; (3) secretarial and clerical staff; and (4) the total central office staff. The in-school staff included the full-time equivalent of the administrators prorated as explained in Chapter One, the total support staff, guidance counsellors, librarians, aides, secretarial and clerical staff, and teachers. The total staff sub-groups included the total educational administrative staff, the total support staff, the total non-instructional staff, the total instructional staff, and the total educational staff component.

The relationships between these sixteen variables and the size of the school system were found in five types of jurisdictions, namely counties, divisions, public, separate, and consolidated districts, and also in combinations of these found within a designated geographic area.

Using the sixteen variables, ratios were computed between each variable and the size of the school system. These ratios were then compared to the number of pupils in the system to determine what relationship existed. Mean ratios were calculated for each variable for certain designated system sizes to offer a point of comparison for individual systems.

### Summary of Chapter Three

The population of this cross-sectional study



consisted of all the counties, divisions and operating school districts within Alberta with the exception of the districts in Calgary and Edmonton, the Northland Division and enclosed districts and the western town and rural districts. Ninety-seven percent of these responded and these formed the sample.

The data were collected from the school superintendents and/or other officials in the school system. They provided information on the number of pupils and teachers in the systems and the number and positions of the administrative staff in the systems.

The raw data from the questionnaires were used to find the numbers of personnel in sixteen different categories and using this information, ratios of the numbers of personnel per 1,000 students were calculated. Mean ratios were also found for groups arranged according to designated size categories to offer a point of comparison for the ratios of individual systems.





## Chapter 4

### PRESENTATION AND ANALYSIS OF THE DATA

This chapter presents (1) the overall numbers and ratios of personnel in the five types of jurisdictions and (2) the relationships between the numbers and ratios of staff personnel, to the number of students enrolled in the districts and in the surrounding county or division. The central office category did not include secretary-treasurers or their assistants.

In order to simplify the presentation of the data, a number of abbreviations have been used in the tables. The abbreviations used in describing the types of jurisdictions were:

county	C
school division	D
separate school district	S
public school district	P
consolidated school district	Con

Further abbreviations used in the study were:

administration or administrators	Admin.
supervisors	Supv.
directors	Dir.
psychologists	Psy.



guidance counsellors	Guid.
remedial staff	Rem.
secretarial and clerical	Sec. and Cler.
in-school staff	I-S
full-time equivalent	F.T.E.
support staff	Supp.
instructional staff	Instr.
non-instructional staff	Non-instr.
librarians	Lib.
central office staff	CO

The ratio used in each table is the number of personnel in the designated category per 1,000 students.

#### ANALYSIS BY TYPE OF JURISDICTION

Tables 3 to 8 present an overview of the educational scene in Alberta. Numbers and mean ratios were presented by type of jurisdiction to give background information for further discussions.

Table 3 presents the total number of personnel in central office categories for each type of jurisdiction. This table shows the number of systems; the number of pupils; administrators, supervisors and directors; psychologists, guidance counsellors and remedial personnel; the secretarial and clerical staff; and the total central office staff; for each type of jurisdiction. From the data in Table 3, the separate districts obviously had a much smaller pupil population than did either the county,



Table 3

Summary of Total Numbers of Central Office Staff in  
School Systems Grouped by Type of Jurisdiction

Juris.	Systems	Pupils	Total Numbers				CO
			Admin./ Supv./ Dir.	Psy./ Guid./ Rem.	Sec./ Cler.		
County	29	79,761	60.5	9.6	80.3		150.4
Division	29	62,656	52.1	4.0	63.9		120.0
Public District	19	35,647	34.9	3.0	39.2		77.1
Separate District	42	19,852	11.0	0	18.6		29.6





division or public districts. The services rendered by the separate districts were fewer than those rendered by the other three types of jurisdictions specified, since this was the only type of jurisdiction having no psychologists, guidance or remedial personnel.

The mean ratio of personnel per 1,000 students in every category for each jurisdiction is shown in Table 4. Though the mean ratios of each category showed slightly larger numbers in the jurisdictions having larger systems, the mean ratios in the county, division and public jurisdictions were very similar. As predicted from the previous table, the separate district had a very small mean size and the mean ratio of personnel per 1,000 students in every category was less than the corresponding ratio in other jurisdictions. No personnel were found in the cells showing the ratio of the numbers of psychological, guidance and remedial personnel per 1,000 students.

Tables 5 and 6 present an overall view of the in-school staff by type of jurisdiction. Though guidance counsellors were employed by the separate districts the number was still relatively small. Table 5 shows that in the county, division and public district jurisdictions there was only one category, guidance counsellors, not having as many personnel as the total number of systems. However, in the separate systems there were three categories, guidance counsellors, librarians, and secretarial and clerical staff, that did not have at least forty-two staff



Table 4

Comparison of Mean Ratios of Central Office Staff in  
School Systems Grouped by Type of Jurisdiction

Juris.	No. of Systems	Mean No. of Pupils	Mean Ratios of Staff per 1,000 Pupils				
			Admin. Supv. Dir.	Psy. Guid. Rem.	Sec. Cler.	CO	
County	29	2,750.4	0.8	0.1	1.0	1.9	
Division	29	2,160.6	0.8	0.1	1.0	1.9	
Public District	19	1,876.2	1.0	0.1	1.1	2.2	
Separate District	42	472.7	0.6	0	0.9	1.5	



Table 5

Summary of Numbers of In-School Staff in School  
Systems Grouped by Type of Jurisdiction

Juris.	No. of Systems	No. of Pupils	Total Numbers of In-School Staff							
			F. T. E. I-S	Admin. I-S	I-S Supp.	Guid.	Lib.	I-S Sec./ Cler.	I-S Aides	Teachers
County	29	79,761	190.4	316.4	49.2	92.0	258.1	58.3	3,613.9	
Division	29	62,656	156.5	279.7	19.3	59.5	176.1	103.6	2,772.4	
Public District	19	35,647	98.3	164.0	32.0	57.6	129.5	34.5	1,626.1	
Separate District	42	19,852	45.6	71.5	7.5	20.9	44.3	27.2	822.6	



Table 6

Comparison of Mean Ratios of In-School Staff in School  
Systems Grouped by Type of Jurisdiction

Juris.	No. of Systems	Mean No. of Pupils	Mean Ratio of Staff per 1,000 Pupils							
			F.T.E. I-S	Admin	I-S Supp.	Guid.	Lib.	I-S Sec. / Cler.	I-S Aides	Teachers
County	29	2,750.4	2.4		4.0	0.6	1.2	3.2	0.7	45.3
Division	29	2,160.6	2.5		4.5	0.3	0.9	2.8	1.7	44.2
Public District	19	1,876.2	2.8		4.6	0.9	1.6	3.6	1.0	45.6
Separate District	42	472.7	2.3		3.6	0.4	1.1	2.2	1.4	41.4





members--forty-two being the number of separate districts. Though there were fluctuations within the categories, the mean number per 1,000 students determined for each jurisdiction did not have extreme values. In the seven categories, however, the public districts reported the highest ratios in all but the in-school aide category.

The total staff categories have been summarized in Tables 7 and 8. Table 8 shows the mean ratios for the separate districts had lower values in every category than did the public district, division and county jurisdictions. The public district mean ratios were the highest in every category except for instructional staff, where the county jurisdiction had slightly higher mean ratios.

#### CENTRAL OFFICE RELATIONSHIPS WITHIN SYSTEMS

##### Counties Encompassing Two or More Districts

The data reported in Table 9 compare the central office staff in counties enclosing two or more operating districts, with the enclosed districts. Seven such counties were found with twenty interior districts. Of the twenty-seven systems, six had no central office staff, four were separate districts, and two were consolidated districts. The six separate districts had from 181 to 313 students enrolled while in the consolidated districts the pupil populations were 45 and 83.



Table 7

Summary of Total Number of Staff in School  
Systems Grouped by Type of Jurisdiction

Juris.	No. of Systems	No. of Pupils	Total Numbers of Staff				
			Admin. Supv./ Dir.	Supp.	Non- Instr.	Instr.	Staff
County	29	79,761	250.9	396.7	656.2	3,953.8	4,610.0
Division	29	62,656	208.6	341.6	554.2	3,030.2	3,584.4
Public District	19	35,647	133.2	200.2	336.4	1,752.7	2,089.1
Separate District	42	19,852	56.6	89.2	145.8	897.1	1,042.9



Table 8

Comparison of Mean Ratios of Total Staff Personnel in  
School Systems Grouped by Type of Jurisdiction

Juris.	No. of Systems	Mean No. of Pupils	Mean Ratios of Total Staff per 1,000 Pupils				
			Admin./ Supv./ Dir.	Supp.	Non- Instr.	Instr.	Staff
County	29	2,750.4	3.1	5.0	8.2	49.6	57.8
Division	29	2,160.6	3.3	5.5	8.8	48.4	57.2
Public District	19	1,876.2	3.7	5.6	9.4	49.2	58.6
Separate District	42	472.7	2.9	4.5	7.3	45.2	52.5





Table 9

Comparison between Central Office Staff Numbers and Ratios for  
Three or More Systems within One Geographical Area (Counties)

System	Type of System		No. of Pupils	Admin. / Supv. / Dir.	Psy. / Guid. / Rem.	Sec. / Cler.	Total CO
LETHBRIDGE	C	Number	3,250	1.0	0	3.0	4.0
		Ratio		0.3	0	0.9	1.2
Lethbridge	S	Number	2,261	2.8	0	3.0	5.8
		Ratio		1.2	0	1.3	2.5
Lethbridge	P	Number	7,705	9.1	1.0	9.0	19.0
		Ratio		1.2	0.1	1.2	2.5
Barons	Con	Number	83	0	0	0	0
		Ratio		0	0	0	0
Picture Butte	S	Number	181	0	0	0	0
		Ratio		0	0	0	0
Coaldale	S	Number	205	0	0	0	0
		Ratio		0	0	0	0
GRANDE PRAIRIE	C	Number	2,789	2.0	0	2.0	4.0
		Ratio		0.7	0	0.7	1.4
Beaver Lodge	S	Number	134	0.1	0	0	0.1
		Ratio		0.8	0	0	0.8
Grande Prairie	S	Number	939	0.8	0	2.0	2.8
		Ratio		0.9	0	2.1	3.0
Grande Prairie	P	Number	3,158	2.0	0	5.5	7.5
		Ratio		0.6	0	1.7	2.4
Sexsmith	S	Number	113	0.1	0	0	0.1
		Ratio		0.9	0	0	0.9
RED DEER	C	Number	4,529	4.0	0	3.0	7.0
		Ratio		0.9	0	0.7	1.6
Red Deer	S	Number	1,396	1.0	0	2.0	3.0
		Ratio		0.7	0	1.4	2.2
Red Deer	P	Number	6,039	7.0	1.0	7.0	15.0
		Ratio		1.2	0.2	1.2	2.5
Lausana	Con	Number	45	0	0	0	0
		Ratio		0	0	0	0
STRATHCONA	C	Number	8,673	7.0	1.0	8.3	16.3
		Ratio		0.8	0.1	1.0	1.9
Fort Saskatchewan	S	Number	313	0	0	0	0
		Ratio		0	0	0	0
Salisbury	S	Number	1,313	0	0	1.0	1.0
		Ratio		0	0	0.8	0.8
CAMROSE	C	Number	2,514	2.0	0	3.5	5.5
		Ratio		0.8	0	1.5	2.4
Camrose	S	Number	474	0.1	0	0	0.1
		Ratio		0.2	0	0	0.2
Camrose	P	Number	1,814	1.0	0	2.0	3.0
		Ratio		0.6	0	1.1	1.7
WETASKIWIN	C	Number	2,330	2.0	0	3.5	5.5
		Ratio		0.9	0	1.5	2.4
Wetaskiwin	S	Number	225	0	0	0	0
		Ratio		0	0	0	0
Wetaskiwin	P	Number	1,558	2.0	0	1.5	3.5
		Ratio		1.3	0	1.0	2.3
ST. PAUL	C	Number	1,689	1.0	0	1.2	2.2
		Ratio		0.6	0	0.7	1.3
Glen Avon	S	Number	402	0.3	0	1.1	1.4
		Ratio		0.8	0	2.7	3.5
St. Paul	P	Number	1,113	0.4	0	1.0	1.4
		Ratio		0.4	0	0.9	1.3



Three of the twenty-one systems, which had a central office staff, had only one central office administrator and he spent only ten percent of his time in the district. Salisbury Separate, with a pupil population of 1,313, had only a full-time secretary. Table 9 shows that only seventeen of the twenty-seven systems had a central office staff greater than one full-time person. Four of the seven county areas surrounded at least one school system that had no central office personnel, and two county areas enclosed at least one system with a central office staff of 0.1 (F.T.E.).

There were similarities among the types of jurisdictions when the ratios of central office personnel were compared. In the administrative category, with the exception of Lethbridge County, Camrose Separate, and St. Paul Public, which had ratios of 0.3, 0.2 and 0.4 respectively, the range was between 0.6 and 1.3 per 1,000 students. Glen Avon Separate and the Grande Prairie Separate and Public systems had ratios of 2.7, 2.1 and 1.7 in the central office secretarial and clerical categories, while the range for the remaining systems was from 0.7 to 1.5 staff members for each 1,000 students. There were no psychologists, guidance counsellors or remedial staff in the central offices except for the systems with a pupil population greater than 6,000 students.

Using the sixteen systems that had more than one person in central office, the greater ratio range between



a county and its enclosed districts for central office staff was found in the St. Paul County systems, where the county and public district each had a central office ratio of 1.3 and Glen Avon Separate had a ratio of 3.5

#### Divisions Having Two or More Enclosed Operating Districts

Twenty-one school systems were included within the geographical areas which enclosed a division and two or more operating school districts. These areas encompassed more systems with no central office staff than did the county areas previously described. Within the areas, as indicated in Table 10, were found twenty-three school systems; six divisions, five public districts, eleven separate districts and one consolidated district. Of these twenty-three systems, two public districts, eight separate districts and the consolidated district employed no central office staff personnel. One other separate district had only a superintendent who spent one-fifth of his time in the system. The remaining eleven systems that had more than one person in their central office were the six divisions, the separate and public districts with coterminous boundaries in St. Albert and Medicine Hat and the Bonnyville Public School District.

Within the areas described above, only one division--Medicine Hat--encompassed systems that had central office personnel in every system. Every other division except one had at least two systems that had no



Table 10

Comparison between Central Office Staff Numbers and Ratios for  
Three or More Systems within One Geographical Area (Division)

System	Type of System	No. of Pupils	Admin. / Supv. / Dir.	Psy. / Guid. / Rem.	Sec. / Cler.	Total CO
STURGEON	D	Number Ratio	1,921 2.0 1.0	1.0 0.5	2.0 1.0	5.0 2.6
Legal	P	Number Ratio	382 0 0	0 0	0 0	0 0
Thibault	P	Number Ratio	610 0 0	0 0	0 0	0 0
St. Albert	S	Number Ratio	2,594 2.0 0.8	0 0	4.0 1.5	6.0 2.3
St. Albert	P	Number Ratio	1,840 2.0 1.1	0 0	4.0 2.2	6.0 3.3
PEACE RIVER	D	Number Ratio	3,297 3.0 0.9	0 0	2.5 0.8	5.5 1.7
Rosary	S	Number Ratio	237 0 0	0 0	0 0	0 0
Grimshaw	S	Number Ratio	200 0 0	0 0	0 0	0 0
Peace River	S	Number Ratio	534 0 0	0 0	0 0	0 0
Nampa	S	Number Ratio	96 0 0	0 0	0 0	0 0
BONNYVILLE	D	Number Ratio	2,507 3.0 1.2	0 0	3.0 1.2	6.0 2.4
Bonnyville	P	Number Ratio	790 0.7 0.9	0 0	1.0 1.3	1.7 2.2
Cold Lake	S	Number Ratio	280 0.2 0.7	0 0	0 0	0.2 0.7
Grand Centre	S	Number Ratio	190 0 0	0 0	0 0	0 0
MEDICINE HAT	D	Number Ratio	809 1.0 1.2	1.0 1.2	1.5 1.9	3.5 4.3
Medicine Hat	S	Number Ratio	1,818 2.0 1.1	0 0	3.0 1.7	5.0 2.8
Medicine Hat	P	Number Ratio	5,353 6.5 1.2	1.0 0.2	4.0 0.8	11.5 2.2
HIGH PRAIRIE	D	Number Ratio	3,892 3.0 0.8	0 0	4.0 1.0	7.0 1.8
McLennan	S	Number Ratio	225 0 0	0 0	0 0	0 0
High Prairie	S	Number Ratio	427 0 0	0 0	0 0	0 0
SPIRIT RIVER	D	Number Ratio	2,036 2.0 1.0	0 0	3.0 1.5	5.0 2.5
Spirit River	S	Number Ratio	67 0 0	0 0	0 0	0 0
Falher	Con	Number Ratio	547 0 0	0 0	0 0	0 0





central office personnel.

Because Peace River, High Prairie and the Spirit River Divisions had no enclosed districts which employed central office personnel, no comparison could be made between these divisions and the districts. The districts and divisions which had central office personnel had variations in the ratios of administrative and supervisory personnel employed to a maximum of 0.5 staff members for every 1,000 students. The two smallest school divisions and the largest school district each had one psychologist, guidance counsellor or remedial person, while the other systems reported no staff members in this category.

The range of the ratio of secretarial staff to the number of students in the system varied from 0.8 to 2.2 for those systems having secretarial and clerical staff. The smaller systems tended to have the greater number of secretarial and clerical personnel per 1,000 students.

The total central office staff ratios ranged from 0.7 to 4.3 staff members for each 1,000 students. Medicine Hat School Division, with 809 students, had the highest ratio while Cold Lake Separate, with a staff of only one who spent one-fifth of his time in the system, had the lowest ratio of total central office personnel per 1,000 students. With the exception of the two extremes listed previously, and the St. Albert Public District



which had a ratio of 3.3, the range was from 1.7 to 2.8 central office staff for each 1,000 students.

#### Counties Enclosing One District

Table 11 shows the relationship between the central office staff in counties with one enclosed district and the personnel in corresponding categories in the enclosed districts. The twenty-six systems reported represent thirteen counties, four public districts and nine separate districts.

All of the counties except Paintearth reported at least one full-time administrator, supervisor or director. Paintearth had one person in this category spending one-half his time in the system. Each county had at least one secretary or clerical person. Five counties reported full-time personnel in the psychological and remedial category, while a sixth county reported having a person working sixty percent of the time in this category. The ratios corresponding to these numbers showed the counties with administrative ratios ranging from 0.4 to 1.2, secretarial and clerical ratios ranging from 0.4 to 3.3, and the ratios of the psychological staff ranging from 0.2 to 0.8.

Most of the separate districts within the county boundaries did not have the distribution of personnel in the designated categories that the counties had. Of the nine separate districts within the counties, five had no



Table 11

Comparison between Central Office Staff Numbers and Ratios for  
Geographical Areas Having Two Systems (within Counties)

System	Type of System		No. of Pupils	Admin. / Supv. / Dir.	Psy. / Guid. / Rem.	Sec. / Cler.	Total CO
PARKLAND	C	Number Ratio	5,844	4.0 0.7	1.0 0.2	3.8 0.7	8.8 1.5
Drayton Valley	S	Number Ratio	414	0 0	0 0	0 0	0 0
LEDUC	C	Number Ratio	4,877	4.0 0.8	1.0 0.2	2.0 0.4	7.0 1.4
Devon	P	Number Ratio	680	1.0 1.7	0 0	0 0	1.0 1.7
PONOKA	C	Number Ratio	3,764	2.0 0.5	1.0 0.3	2.5 0.7	5.5 1.5
Ponoka	S	Number Ratio	206	0 0	0 0	0 0	0 0
LAC ST. ANNE	C	Number Ratio	3,720	2.0 0.5	0 0	5.0 1.3	7.0 1.9
Whitecourt	S	Number Ratio	109	0 0	0 0	0 0	0 0
FLAGSTAFF	C	Number Ratio	2,611	2.0 0.8	0 0	2.0 0.8	4.0 1.6
Killam	S	Number Ratio	127	0.2 1.6	0 0	0 0	0.2 1.6
VERMILION RIVER	C	Number Ratio	2,454	2.0 0.8	0 0	2.5 1.0	4.5 1.8
Vermilion	S	Number Ratio	349	0.2 0.6	0 0	0 0	0.2 0.6
MINBURN	C	Number Ratio	2,283	2.0 0.9	1.0 0.4	1.0 0.4	4.0 1.8
St. Martin's	S	Number Ratio	261	0.2 0.8	0 0	0 0	0.2 0.8
WARNER	C	Number Ratio	2,052	1.0 0.5	0 0	1.0 0.5	2.0 1.0
Stirling	P	Number Ratio	193	0 0	0 0	0 0	0 0
WHEATLAND	C	Number Ratio	1,959	2.0 1.0	0 0	2.0 1.0	4.0 2.0
St. Rita's	S	Number Ratio	129	0 0	0 0	0 0	0 0
NEWELL	C	Number Ratio	1,651	2.0 1.2	0.6 0.4	3.0 1.8	5.6 3.4
Brooks	P	Number Ratio	1,346	1.0 0.7	0 0	1.0 0.7	2.0 1.5
FORTY MILE	C	Number Ratio	1,391	1.0 0.7	0 0	2.5 1.8	3.5 2.5
Bow Island	S	Number Ratio	241	0 0	0 0	1.0 4.2	1.0 4.2
PAINTEARTH	C	Number Ratio	1,220	0.5 0.4	1.0 0.8	4.0 3.3	5.5 4.5
Theresetta	S	Number Ratio	204	0 0	0 0	0 0	0 0
STETTTLER	C	Number Ratio	1,036	1.0 1.0	0 0	2.0 1.9	3.0 2.9
Stettler	P	Number Ratio	1,493	2.0 1.3	0 0	3.0 2.0	5.0 3.4





central office staff, three had only a superintendent who spent one day a week in the district, and one had only a full-time secretary. The districts that did have administrative staff, however, had ratios that were comparable to those in the counties.

The staff in the central office of the public districts was slightly larger than that found in the separate districts. The four public districts varied in size of central office personnel from Stirling, with no staff, to Stettler, which had two central office administrators, and three secretarial personnel. The increase in size of the central office staff was offset by an increase in the size of the districts; this caused the ratios to remain somewhat similar to those in other districts and counties.

The ratio of total central office staff fluctuated greatly within both the counties and the districts. The range in ratios for the counties varied from a high of 4.5 personnel per 1,000 students in Paintearth--because of a ratio of 3.3 in the secretarial and clerical category--to a low of 1.0 in Warner--which had only an administrator and secretary. The ratios in those districts which had central office staff ranged from a high of 4.2--in Bow Island with a pupil population of 241 and a full-time secretary--to a low of 0.8 in St. Martin's which had an administrator for only one day a week and no secretarial staff.



Divisions with One Enclosed  
Operating District

Table 12 shows twenty-two systems including eleven divisions, ten separate districts and one public district. The ten separate districts included (1) four districts which had no central office personnel, (2) four districts which had a superintendent who worked in the district for only one-fifth of his time, (3) a district that had a full-time secretary, and (4) one district that had a superintendent who spent one-fifth of his time in the district and a secretary who worked for the district half-time. The only public district recorded in the table had a superintendent who spent three-tenths of his time in the district and a secretary who worked for the district one day a week. The range of administrative ratios described above was from 0.3 to 1.5 personnel per 1,000 students. The clerical staff ratios ranged from 0.2 to 2.3 personnel per 1,000 students.

Compared with the districts, ten of the eleven divisions had at least one full-time staff member in the category of administrator/supervisor/director. Nine of the eleven divisions had at least one full-time secretary. Eight of the eleven districts had no personnel in the latter category. The administrative ratios for the divisions ranged from 0.4 to 1.7 and the secretarial and clerical ratios ranged from 0.7 to 2.0. The administrative ratios in the districts ranged from 0.3 to 1.5.



Table 12

Comparison between Central Office Staff Numbers and Ratios for  
Geographical Areas Having Two Systems (within Divisions)

System	Type of System	No. of Pupils	Admin./ Supv./ Dir.	Psy./ Guid./ Rem.	Sec./ Cler.	Total C.
TABER	D	Number Ratio	2,970 3.0 1.0	0 0	2.0 0.7	5.0 1.7
Taber	S	Number Ratio	571 0 0	0 0	0 0	0 0
WESTLOCK	D	Number Ratio	2,795 1.0 0.4	0 0	2.0 0.7	3.0 1.1
Westlock	S	Number Ratio	304 0 0	0 0	0 0	0 0
WAINWRIGHT	D	Number Ratio	2,123 2.0 0.9	0 0	2.5 1.2	4.5 2.1
Wainwright	S	Number Ratio	251 0.2 0.8	0 0	0 0	0.2 0.8
EAST SMOKY	D	Number Ratio	1,848 1.0 0.5	0 0	2.0 1.1	3.0 1.6
Valleyview	S	Number Ratio	251 0 0	0 0	0 0	0 0
DRUMHELLER VALLEY	D	Number Ratio	1,802 2.5 1.4	0 0	2.4 1.3	4.9 2.7
Drumheller Valley	S	Number Ratio	296 0 0	0 0	0 0	0 0
FORT VERMILION	D	Number Ratio	1,798 3.0 1.7	0 0	2.0 1.1	5.0 2.8
Fort Vermilion	S	Number Ratio	170 0.2 1.2	0 0	0 0	0.2 1.2
FAIRVIEW	D	Number Ratio	1,610 1.0 0.6	0 0	2.0 1.2	3.0 1.9
St. Thomas More	S	Number Ratio	430 0 0	0 0	1.0 2.3	1.0 2.3
PINCHER CREEK	D	Number Ratio	1,526 1.0 0.7	0 0	1.0 0.7	2.0 1.3
St. Michael's	S	Number Ratio	495 0.2 0.4	0 0	0.5 1.0	0.7 1.4
PROVOST	D	Number Ratio	1,104 1.0 0.9	0 0	0 0	1.0 0.9
Provost	S	Number Ratio	289 0.2 0.7	0 0	0 0	0.2 0.7
ACADIA	D	Number Ratio	1,059 1.0 0.9	0 0	2.0 1.9	3.0 2.8
Assumption	S	Number Ratio	131 0.2 1.5	0 0	0 0	0.2 1.5
SULLIVAN LAKE	D	Number Ratio	255 0.3 1.2	0 0	0.5 2.0	0.8 3.1
Hanna	P	Number Ratio	898 0.3 0.3	0 0	0.2 0.2	0.5 0.6



The total number of personnel per 1,000 students in the central office was generally larger for the divisions than for the districts. The ratios for the divisions ranged from 0.9 to 3.1 with eight of the eleven systems having more than 1.5 central office personnel per 1,000 students. The ratios for the districts which had central office personnel ranged from 0.8 to 2.3, with only two of the seven having a ratio of 1.5 persons per 1,000 students or greater.

### Discussion

Data relevant to the numbers and ratios of central office staff in counties or divisions and the districts enclosed by these areas showed that the separate systems, in most cases, had fewer resource personnel in the central office than did the counties or divisions.

The null categories were found in the smaller separate systems, which usually served less than 500 students. Most of the public systems within this size group also had a number of empty categories at the central office level.

The total central office staff ratios were similar in size to most systems which had both administrators and secretarial staff. The secretarial staff, however, tended to be non-existent in the total systems and the total central office staff ratios tended to be lower.





## IN-SCHOOL RELATIONSHIPS WITHIN SYSTEMS

The numbers and ratios presented in Tables 13 to 16 inclusive shows the relationship between in-school staff for counties or divisions and the districts enclosed by the exterior boundaries of the county or division. The in-school staff were categorized as full-time equivalent in-school administrators, in-school support staff, guidance counsellors, librarians, in-school secretarial and clerical staff, in-school aides, and teachers. The secretarial and clerical staff and the in-school aides composed the support staff, and the guidance counsellors and librarians were included in the teaching staff.

### Counties with More than One Enclosed District

Table 13 shows the relationship between the county system and the enclosed districts for those counties enclosing two or more districts. With the exception of one district, no school systems with a pupil population of less than 1,000 had personnel in more than four of the seven categories. The systems which had less than 1,000 pupils included eight separate districts and two consolidated districts. The systems with more than 1,000 population were seven counties, six public systems--all of which had coterminous boundaries with separate systems--two separate systems having coterminous boundaries with public districts, and the Salisbury Separate system.



Table 13

Comparison of Numbers and Ratios of In-School Staff within Geographical Areas Having Three or More Systems (County Areas)

System	Type of System		No. of Pupils	F.T.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
LETHBRIDGE	C	Number	3,250	6.8	14.0	2.0	11.0	14.0	0	156.0
		Ratio		2.1	4.3	0.6	3.4	4.3	0	48.0
Barons	Con	Number	83	0.2	1.0	0	0	0	1.0	4.0
		Ratio		2.3	12.1	0	0	0	12.1	48.2
Picture Butte	S	Number	181	0.1	0	0	0	0	0	8.0
		Ratio		0.8	0	0	0	0	0	44.2
Coaldale	S	Number	205	0.1	0	0	0	0	0	8.0
		Ratio		0.5	0	0	0	0	0	39.0
Lethbridge	S	Number	2,261	5.0	15.0	1.5	3.4	5.5	9.5	90.5
		Ratio		2.2	6.6	0.7	1.5	2.4	4.2	40.0
Lethbridge	P	Number	7,705	23.0	45.5	9.5	14.0	36.5	9.0	340.0
		Ratio		3.0	5.9	1.2	1.8	4.7	1.2	44.1
GRANDE PRAIRIE	C	Number	2,789	4.3	13.0	0	5.3	13.0	0	123.3
		Ratio		1.5	4.7	0	1.9	4.7	0	44.2
Beaver Lodge	S	Number	134	0.3	1.2	0	0	0	1.2	4.0
		Ratio		1.9	9.0	0	0	0	9.0	29.9
Grande Prairie	S	Number	939	2.5	1.6	0	0	1.6	0	34.5
		Ratio		2.7	1.7	0	0	1.7	0	36.7
Grande Prairie	P	Number	3,158	7.5	13.0	1.0	3.0	13.0	0	141.5
		Ratio		2.4	4.1	0.3	1.0	4.1	0	44.8
Sexsmith	S	Number	113	0.1	0	0	0	0	0	4.0
		Ratio		0.9	0	0	0	0	0	35.4
RED DEER	C	Number	4,529	9.0	13.0	4.0	7.5	13.0	0	218.5
		Ratio		1.9	2.9	0.9	1.7	2.9	0	48.2
Red Deer	S	Number	1,396	2.9	4.0	2.0	2.0	4.0	0	55.0
		Ratio		2.1	2.9	1.4	1.4	2.9	0	39.4
Red Deer	P	Number	6,039	18.1	30.0	6.0	11.6	24.0	6.0	254.5
		Ratio		3.0	5.0	1.3	1.9	4.0	1.0	42.1
Lausana	Con	Number	45	0	0	0	0	0	0	2.0
		Ratio		0	0	0	0	0	0	44.4
STRATHCONA	C	Number	8,673	22.8	53.8	12.0	3.5	31.1	22.7	351.5
		Ratio		2.6	6.2	1.4	0.4	3.6	2.6	40.6
Fort Saskatchewan	S	Number	313	0.5	2.0	0	0	1.0	1.0	14.0
		Ratio		1.6	6.4	0	0	3.2	3.2	44.7
Salisbury	S	Number	1,313	3.2	6.0	0	0	4.0	2.0	39.0
		Ratio		2.4	4.6	0	0	3.1	1.1	29.7
CAMROSE	C	Number	2,514	4.8	2.3	0	1.1	2.3	0	112.0
		Ratio		1.9	0.9	0	0.4	0.9	0	44.6
Camrose	S	Number	474	0.6	0	0	0.5	0	0	21.0
		Ratio		1.3	0	0	1.1	0	0	44.3
Camrose	P	Number	1,814	3.4	6.0	2.0	2.0	3.0	3.0	84.0
		Ratio		1.9	3.3	1.1	1.1	1.7	1.7	46.3
WETASKIWIN	C	Number	2,330	8.1	7.0	0	3.0	7.0	0	103.0
		Ratio		3.5	3.0	0	1.3	3.0	0	44.2
Wetaskiwin	S	Number	225	0.2	1.0	0	0	1.0	0	8.0
		Ratio		0.9	4.4	0	0	4.4	0	35.6
Wetaskiwin	P	Number	1,558	4.8	4.0	2.0	3.0	3.0	1.0	68.0
		Ratio		3.1	2.6	1.3	1.9	1.9	0.6	43.7
ST. PAUL	C	Number	1,689	4.6	9.0	0	0	6.0	3.0	78.0
		Ratio		2.8	5.3	0	0	3.6	1.8	46.2
Glen Avon	S	Number	402	0	2.0	0	0	0	2.0	21.0
		Ratio		0	5.0	0	0	0	5.0	52.2
St. Paul	P	Number	1,113	3.0	7.0	0	1.0	2.0	5.0	55.0
		Ratio		2.7	6.3	0	0.9	1.8	4.5	49.4



The seven counties and nine districts having more than 1,000 students showed a greater distribution of personnel than did the districts having less than 1,000 students. In the nine districts mentioned, the greatest distribution was in the public district where only two of the six districts had vacant categories. Each of the two districts which did not have personnel in every category had only one category vacant. Lethbridge, Red Deer, and Salisbury were the only three separate systems with more than 1,000 students enrolled. Lethbridge had personnel in all seven of the in-school staff categories. Red Deer had no personnel employed as in-school aides, but had personnel in all other categories. Salisbury had no guidance counsellors or librarians within the schools. The counties had more vacant categories than did either the public or separate districts serving more than 1,000 students. Within the counties, four had two vacant categories each, two had one each and only the County of Strathcona reported personnel in every category. The categories most frequently being void of personnel were those of guidance counsellors, in-school aides and librarians.

The number of teachers per 1,000 students ranged widely within the systems in Table 13. The smallest ratio was found in Salisbury Separate, which had 29.7 teachers per 1,000 students. The largest number of teachers per 1,000 students occurred in Glen Avon Separate, which had





52.2. Most of the systems ranged from 43 to 49 teachers per 1,000 students. The smallest range of ratios was recorded in the county systems.

Divisions with More Than One  
Enclosed District

The series of numbers and ratios presented in Table 14 show the relationships between divisions whose exterior boundaries enclosed more than one operating district and the operating districts enclosed. The twenty-three systems represented in this group included (1) six divisions, five of which had a pupil population greater than 1,000; (2) five public districts with more than 1,000 students in two of them; (3) eleven separate districts, two having more than 1,000 students; and (4) one consolidated district serving 547 students.

From this data the group of separate districts obviously offered less in-school services, since seven of the eleven systems had personnel in only four or less of the seven categories of in-school staff. However, the size distinction was not as evident in the group of systems represented in Table 14 as it was in the systems in Table 13. Of the systems described in Table 14, six having less than 1,000 students provided in-school personnel in at least five of the seven categories.

The categories having the fewest personnel in the twenty-three systems described in Table 14 were those of guidance counsellor, in-school aides and librarians. The



Table 14

Comparison of Numbers and Ratios of In-School Staff within Geographical Areas Having Three or More Systems (Division Areas)

System	Type of System		No. of Pupils	F.T.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
STURGEON	D	Number	1,921	7.7	6.0	0	6.0	6.0	0	80.0
		Ratio		4.0	3.1	0	3.1	3.1	0	41.6
Legal	P	Number	382	0.5	0	0	0.4	0	0	18.4
		Ratio		1.3	0	0	1.1	0	0	48.2
Thibault	P	Number	610	1.6	1.5	0	1.0	1.5	0	29.0
		Ratio		2.6	2.5	0	1.6	2.5	0	47.5
St. Albert	P	Number	1,840	4.2	7.0	2.5	3.8	7.0	0	81.3
		Ratio		2.3	3.8	1.4	2.1	3.8	0	44.2
St. Albert	S	Number	2,594	8.6	14.2	3.0	5.0	7.6	6.6	120.7
		Ratio		3.3	5.5	1.2	1.9	2.9	2.5	46.5
PEACE RIVER	D	Number	3,297	4.8	8.8	1.0	4.0	8.8	0	147.0
		Ratio		1.5	2.7	0.3	1.2	2.7	0	44.6
Rosary	S	Number	237	0.5	0	0	0	0	0	9.0
		Ratio		2.0	0	0	0	0	0	38.0
Grimshaw	S	Number	200	0.4	0	0	0	0	0	8.0
		Ratio		2.0	0	0	0	0	0	40.0
Peace River	S	Number	534	1.5	1.0	0	0	1.0	0	20.0
		Ratio		2.8	1.9	0	0	1.9	0	37.5
Nampa	S	Number	96	0.3	0	0	0	0	0	3.0
		Ratio		3.1	0	0	0	0	0	31.3
BONNYVILLE	D	Number	2,507	6.4	7.2	0	0	7.2	0	108.0
		Ratio		2.6	2.9	0	0	2.9	0	43.1
Bonnyville	P	Number	790	2.1	6.0	0	1.5	2.0	4.0	33.5
		Ratio		2.7	7.6	0	1.9	2.5	5.1	42.4
Cold Lake	S	Number	280	0.6	1.0	0	0.6	1.0	0	12.6
		Ratio		2.1	3.6	0	2.1	3.6	0	45.0
Grand Centre	S	Number	190	0.5	0	0	0.4	0	0	8.4
		Ratio		2.6	0	0	2.1	0	0	44.2
MEDICINE HAT	D	Number	809	1.7	4.1	0	2.0	2.6	1.5	43.3
		Ratio		2.1	5.1	0	2.5	3.2	1.9	53.5
Medicine Hat	S	Number	1,818	4.4	9.4	1.0	6.0	9.0	0.4	83.0
		Ratio		2.4	5.2	0.6	3.3	5.0	0.2	45.7
Medicine Hat	P	Number	5,353	15.3	25.5	6.0	12.0	24.5	1.0	279.3
		Ratio		2.9	4.8	1.1	2.2	4.6	0.2	52.2
HIGH PRAIRIE	D	Number	3,892	8.7	26.0	0	0	13.0	13.0	161.0
		Ratio		2.2	6.7	0	0	3.3	3.3	41.4
High Prairie	S	Number	427	1.2	2.0	0	0	0.3	1.7	17.0
		Ratio		2.8	4.7	0	0	0.7	4.0	39.8
McLennan	S	Number	225	0.2	0	0	0	0	0	8.0
		Ratio		0.8	0	0	0	0	0	35.6
SPIRIT RIVER	D	Number	2,036	3.5	11.0	0.5	1.0	6.0	5.0	88.5
		Ratio		1.7	5.4	0.3	0.5	3.0	2.5	43.5
Spirit River	S	Number	67	0.1	0.1	0	0	0	0.1	2.0
		Ratio		1.5	1.5	0	0	0	1.5	29.8
Falher	Con	Number	547	1.3	1.5	0	0	0.5	1.0	20.0
		Ratio		2.4	2.7	0	0	0.9	1.8	30.6



only systems offering guidance counsellors were the Peace River and Spirit River School Divisions and both of the coterminous districts in St. Albert and Medicine Hat. In all cases where there were no librarians within a division, there were no librarians within any system enclosed by the division.

The ratio of the number of teachers per 1,000 students had a large range in Table 14. The range was from 29.8 to 53.5 teachers per 1,000 students. With the exception of Medicine Hat, the divisions had ratios ranging from 41.4 to 44.6 teachers per 1,000 students. The Medicine Hat School Division had 53.5 teachers per 1,000 students. The districts had a range of 29.8 to 48.2, except for Medicine Hat Public District, which had 52.2 teachers per 1,000 students.

#### Counties Having One Enclosed District

The most obvious contrast observed in Table 15 was the vast difference in size between most of the counties and the enclosed districts. Only in the counties of Newell and Stettler were there districts which had pupil populations comparable in size to the student populations in the surrounding county. These two public districts were the only two districts in this group serving more than 1,000 students.

Table 15 presents data on thirteen counties which had one enclosed operating school district. The thirteen



Table 15

Comparison of Numbers and Ratios of In-School Staff within Geographical Areas Having Two Systems (County Areas)

System	Type of System		No. of Pupils	F.T.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
PARKLAND	C	Number	5,844	13.2	20.6	3.3	5.3	17.3	3.3	239.3
		Ratio		2.3	3.5	0.7	0.9	3.0	0.7	41.0
Drayton Valley	S	Number	414	0.6	0	0	1.0	0	0	16.0
		Ratio		1.5	0	0	2.4	0	0	38.7
LEDUC	C	Number	4,877	13.2	24.0	12.0	10.0	24.0	0	219.0
		Ratio		2.7	4.9	2.5	2.1	4.9	0	44.9
Devon	P	Number	680	1.0	2.5	0	0.8	2.0	0.5	27.0
		Ratio		1.5	3.7	0	1.2	2.9	0.7	39.7
PONOKA	C	Number	3,764	8.7	10.0	3.0	6.3	10.0	0	178.0
		Ratio		2.3	2.7	0.8	1.7	2.7	0	47.3
Ponoka	S	Number	206	0.5	0	0	0	0	0	10.0
		Ratio		2.4	0	0	0	0	0	48.5
LAC ST. ANNE	C	Number	3,720	10.0	12.0	0	3.0	12.0	0	177.0
		Ratio		2.7	3.2	0	0.8	3.2	0	47.6
Whitecourt	S	Number	109	0.1	0	0	0	0	0	5.0
		Ratio		0.9	0	0	0	0	0	45.9
FLAGSTAFF	C	Number	2,611	6.2	10.0	1.0	1.0	7.5	2.5	116.0
		Ratio		2.4	3.8	0.4	0.4	2.9	1.0	44.4
Killam	S	Number	127	0.3	0	0	0	0	0	4.0
		Ratio		2.4	0	0	0	0	0	31.5
VERMILION RIVER	C	Number	2,454	5.1	7.0	1.3	2.0	7.0	0	117.3
		Ratio		2.1	2.9	0.5	0.8	2.9	0	47.8
Vermilion	S	Number	349	0.7	1.0	0	0	1.0	0	15.0
		Ratio		2.0	2.9	0	0	2.9	0	43.0
MINEURN	C	Number	2,283	6.3	27.2	3.6	2.0	24.0	3.2	108.0
		Ratio		2.8	11.9	1.6	0.9	10.5	1.4	47.3
St. Martin's	S	Number	261	0.7	0.6	0	0	0.6	0	10.0
		Ratio		2.9	2.3	0	0	2.3	0	38.3
WARNER	C	Number	2,052	3.4	4.5	1.0	1.5	4.0	0.5	100.0
		Ratio		1.7	2.2	0.5	0.7	2.0	0.2	48.7
Stirling	P	Number	193	0.3	0	0	0	0	0	8.0
		Ratio		1.7	0	0	0	0	0	41.5
WHEATLAND	C	Number	1,959	4.5	9.6	0	1.0	0.6	9.0	82.5
		Ratio		2.3	4.9	0	0.5	0.3	4.6	42.1
St. Rita's	S	Number	129	0	0	0	0	0	0	4.0
		Ratio		0	0	0	0	0	0	31.0
NEWELL	C	Number	1,651	2.0	5.5	0	2.0	4.0	1.5	79.1
		Ratio		1.2	3.3	0	1.2	2.4	0.9	47.9
Brooks	P	Number	1,346	5.6	4.5	1.0	3.0	4.5	0	60.1
		Ratio		4.2	3.3	0.7	2.2	3.3	0	44.7
FORTY MILE	C	Number	1,391	2.7	6.7	0	0	6.7	0	70.0
		Ratio		1.9	4.8	0	0	4.8	0	50.3
Bow Island	S	Number	241	0.8	0	0	0	0	0	10.0
		Ratio		3.3	0	0	0	0	0	41.5
PAINTEARTH	C	Number	1,220	4.0	4.0	0	2.0	3.0	1.0	65.0
		Ratio		3.3	3.3	0	1.6	2.5	0.8	53.3
Theresetta	S	Number	204	0.5	0.2	0	0	0.2	0	11.0
		Ratio		2.5	1.0	0	0	1.0	0	53.9
STETTLER	C	Number	1,036	1.0	2.4	0	1.5	2.4	0	37.5
		Ratio		1.0	2.3	0	1.5	2.3	0	36.2
Stettler	P	Number	1,493	4.6	5.0	2.0	0	4.0	1.0	78.0
		Ratio		3.1	3.4	1.3	0	2.7	0.7	52.2





districts included nine separate districts and four public districts. The size of the separate districts varied from 109 to 414 students while the four public districts had 193, 680, 1,346 and 1,493 students. None of the separate districts had personnel in more than four of the seven in-school categories specified. Four of the separate districts had only a part-time in-school administrator and from four to ten teachers. The entire staff in the St. Rita's Separate School District was composed of four teachers.

Three of the four public districts had in-school staff in six of the seven in-school staff categories defined in this study. Stirling, the smallest public district, had only a part-time administrator and eight teachers.

In contrast to the number of vacant categories in the in-school staff of the separate districts, the counties surrounding these districts had staff members in most categories. Of the thirteen counties, four had personnel in all categories, six more counties had only one category each with no staff members, two counties had two categories in which there were no staff members, and only one recorded that there were no personnel in three of the categories.

Only nine systems reported guidance counsellors. Seven of these systems were county systems and the other two were public systems. The use of in-school aides was reported in nine systems, seven counties and two public



districts.

The number of teachers employed by the systems shown in Table 15 ranged from 4.0 to 239.3. The number of teachers per 1,000 students had a range of 31.5 to 53.9. The ratios were somewhat similar in range to those observed in Tables 13 and 14, but a greater number of systems in Table 15 had a ratio greater than 48.0 teachers per 1,000 students. The number of teachers per 1,000 students for the counties varied from 36.2 to 53.3 whereas for the districts, the variation was from 31.0 to 53.9.

#### Divisions Having One Enclosed District

Table 16 shows the relationship between divisions and the districts they surround. There are eleven such areas, making the number of systems used in this part of the study equal to twenty-two.

Within Table 16, as within the last three tables examined, most of the separate districts had fewer pupils enrolled than did the school jurisdictions surrounding the districts. The exception in this case was the Sullivan Lake Division, which had a student population of 255, while the Hanna Public System had 898 pupils enrolled.

All but one of the separate school districts had at least three categories of in-school staff which had no designated personnel. Drumheller Valley was the exception with two vacant categories. The distinction between



Table 16

Comparison of In-School Staff Numbers and Ratios within Geographical Areas Having Two Systems (Division Areas)

System	Type of System		No. of Pupils	F.T.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
TABER	D	Number	2,970	7.0	19.0	1.0	2.5	11.0	8.0	130.5
		Ratio		2.2	6.7	0.3	0.8	3.7	2.7	43.9
Taber	S	Number	571	1.1	0	0	1.0	0	0	24.0
		Ratio		2.0	0	0	1.8	0	0	42.0
WESTLOCK	D	Number	2,795	7.3	10.0	1.0	1.0	6.0	4.0	108.0
		Ratio		2.6	3.6	0.4	0.4	2.2	1.4	36.6
Westlock	S	Number	304	0.7	1.0	0	0	1.0	0	13.0
		Ratio		2.3	3.3	0	0	3.3	0	42.8
WAINWRIGHT	D	Number	2,123	6.9	6.5	2.3	3.5	5.5	1.0	108.8
		Ratio		3.3	3.1	1.1	1.7	2.6	0.5	51.3
Wainwright	S	Number	251	0.4	1.0	0	0	1.0	0	9.0
		Ratio		1.6	4.0	0	0	4.0	0	35.9
EAST SMOKY	D	Number	1,848	4.3	7.0	0	0	7.0	0	77.5
		Ratio		2.4	3.8	0	0	3.8	0	41.9
Valleyview	S	Number	251	1.0	1.0	0	0	1.0	0	18.0
		Ratio		4.0	4.0	0	0	4.0	0	71.7
DRUMHELLER VALLEY	D	Number	1,802	4.1	5.5	1.5	2.0	4.5	1.0	83.8
		Ratio		2.3	3.1	0.8	1.1	2.5	0.6	46.5
Drumheller Valley	S	Number	296	1.2	2.3	0	0	0.5	1.8	10.2
		Ratio		4.2	7.8	0	0	1.7	6.1	34.5
FORT VERMILION	D	Number	1,798	4.7	7.0	0	0	7.0	0	79.0
		Ratio		2.6	3.9	0	0	3.9	0	43.9
Fort Vermilion	S	Number	170	0.3	1.0	0	0	1.0	0	5.0
		Ratio		1.9	5.9	0	0	5.9	0	29.4
FAIRVIEW	D	Number	1,610	2.9	4.0	0	0	4.0	0	64.0
		Ratio		1.8	2.5	0	0	2.5	0	39.8
St. Thomas More	S	Number	430	1.1	0	0	1.0	0	0	18.5
		Ratio		2.5	0	0	2.3	0	0	43.0
PINCHER CREEK	D	Number	1,526	3.8	13.0	1.0	3.5	5.0	8.0	74.0
		Ratio		2.5	8.5	0.7	2.3	3.3	5.2	48.5
St. Michael's	S	Number	495	1.2	2.0	0	0	2.0	0	22.0
		Ratio		2.5	4.0	0	0	4.0	0	44.4
PROVOST	D	Number	1,104	1.7	7.0	0	0	5.0	2.0	48.5
		Ratio		1.6	6.3	0	0	4.5	1.8	43.9
Provost	S	Number	289	0.5	0	0	0	0	0	13.0
		Ratio		1.9	0	0	0	0	0	45.0
ACADIA	D	Number	1,059	4.1	2.0	0	0	2.0	0	43.5
		Ratio		3.9	1.9	0	0	1.9	0	41.1
Assumption	S	Number	131	0.1	0	0	0	0	0	6.0
		Ratio		0.8	0	0	0	0	0	45.8
SULLIVAN LAKE	L	Number	255	0.3	2.0	0	0	1.0	1.0	11.0
		Ratio		1.0	7.8	0	0	3.9	3.9	43.1
Hanna	P	Number	898	1.8	4.0	0	0.5	2.0	2.0	42.5
		Ratio		2.0	4.5	0	0.6	2.2	2.2	47.3





separate districts and divisions by the number of categories occupied was not as evident in this group as had been evident in the previous tables. Even though five of the eleven divisions had personnel in all categories, two divisions had personnel in only five categories and four divisions had personnel in only four categories.

The categories of guidance counsellor, librarian and in-school aides were the ones having the most vacancies. The five systems in which guidance counsellors were employed were divisions. Of the eight systems reporting the use of librarians, five were divisions, and three were districts. Only one division and its enclosed district both used librarians. Nine systems used in-school aides; seven of these systems were divisions and two were districts.

The range of teacher ratios in divisions was smaller than the teacher ratio ranges described in Tables 13, 14 and 15. The ratio for the divisions in Table 16 ranged from 36.6 to 51.3 teachers per 1,000 students. The teacher ratios for the districts enclosed by the divisions ranged from a low of 29.4 to a high of 71.7 teachers per 1,000 students.

### Discussion

The Tables 13 to 16 show evidence that the in-school staff was not divided proportionately among the categories indicated. The categories most often devoid of personnel



were those of guidance counsellors, librarians and in-school aides. Every system employed teachers. In-school administrators were found in every system except St. Rita's Separate and Lausana Consolidated. Secretarial and clerical staff were found in all but four of the small systems. The other three categories had fewer personnel employed.

Only ten of the twenty counties, seven of the seventeen divisions, nine of the sixteen public districts and four of the forty-two separate districts had guidance counsellors. Twenty-seven of the forty systems having greater than 1,500 pupils enrolled had guidance counsellors and only two of seventy-nine below 1,500 students employed them.

Librarians were not employed by many of the school systems. None of the consolidated districts had librarians. Librarians were not employed by thirty-two of the forty-two separate districts, one of the public districts, eight of the divisions and two of the counties. There seemed to be a size level below which there were few librarians. In the separate districts, few librarians were found in systems with fewer than 500 students.

In-school aides were found in twenty-one of the ninety-eight systems included in this part of the study. There was little evidence that the size of the school systems affected the decision to employ in-school aides. However, very few separate school systems had them employed.



## TOTAL STAFF RELATIONSHIPS WITHIN SYSTEMS

Tables 17 to 20 show the relationship between the numbers and ratios of total staff within areas consisting of two or more educational systems--one being either a county or a division.

Counties Having Two or More  
Enclosed Districts

Table 17 represents the numbers and ratios of the total staff categories for counties surrounding two or more discrete systems. Composing such a group of systems were seven counties, twelve separate districts, six public districts and two consolidated districts.

Within the total administrative, supervisory and director category, only one system, Lausana, reported having no personnel. Nine districts reported less than one full-time administrator. Seven of these districts had lower ratios in the total administrative category than did the other nineteen systems having staff in this category. Three of the four separate districts which had a pupil population greater than 900 students were in urban centers large enough to have both a separate and a public district with coterminous boundaries. The public districts and counties all had a pupil population greater than 1,000 and had an administrative staffing ratio varying from 2.3 to 4.4 administrators/supervisors/directors per 1,000 students.



Comparison of Total Staff Numbers and Ratios within Geographical Areas Having Three or More Systems (County Areas)

System	Type of System		No. of Pupils	Total Admin./Supv./Dir.	Total Supp.	Total Non-Instr.	Total Instr.	Total Staff
LETHBRIDGE	C	Number	3,250	7.8	17.0	24.8	174.1	198.9
		Ratio		2.4	5.2	7.6	53.6	61.2
Barons	Con	Number	83	0.2	1.0	1.2	4.8	6.0
		Ratio		2.4	12.1	14.5	58.0	72.3
Picture Butte	S	Number	181	0.1	0	0.1	8.8	8.9
		Ratio		0.6	0	0.6	48.6	49.2
Coaldale	S	Number	205	0.1	0	0.1	8.9	9.0
		Ratio		0.5	0	0.5	43.4	43.9
Lethbridge	S	Number	2,261	7.8	18.0	25.8	97.5	123.3
		Ratio		3.5	8.0	11.4	43.1	54.5
Lethbridge	P	Number	7,705	32.0	54.5	87.5	360.0	447.5
		Ratio		4.2	7.1	11.4	46.7	58.1
GRANDE PRAIRIE	C	Number	2,789	6.3	15.0	21.3	137.0	158.3
		Ratio		2.3	5.2	7.6	49.1	56.8
Beaver Lodge	S	Number	134	0.4	1.2	1.6	4.7	6.3
		Ratio		3.0	9.0	11.9	35.0	47.0
Grande Prairie	S	Number	939	3.3	3.6	6.9	38.0	44.9
		Ratio		3.5	3.8	7.4	40.5	47.8
Grande Prairie	P	Number	3,158	9.5	18.5	28.0	152.0	180.0
		Ratio		3.0	5.9	9.0	48.1	57.0
Sexsmith	S	Number	113	0.2	0	0.2	4.9	5.1
		Ratio		1.8	0	1.8	43.4	45.1
RED DEER	C	Number	4,529	13.0	16.0	29.0	235.5	264.5
		Ratio		2.9	3.5	6.4	52.0	58.4
Red Deer	S	Number	1,396	3.9	6.0	9.9	60.1	70.0
		Ratio		2.8	4.3	7.1	43.0	50.1
Red Deer	P	Number	6,039	25.1	37.0	63.1	279.4	342.5
		Ratio		4.2	6.1	10.5	46.3	56.7
Lausana	Con	Number	45	0	0	0	3.0	3.0
		Ratio		0	0	0	66.7	66.7
STRATHCONA	C	Number	8,673	29.8	62.1	92.9	387.7	480.6
		Ratio		3.4	7.2	10.7	44.7	55.4
Fort Saskatchewan	S	Number	313	0.5	2.0	2.5	14.5	17.0
		Ratio		1.6	6.4	8.0	46.3	54.3
Salisbury	S	Number	1,313	3.2	7.0	10.2	44.8	55.0
		Ratio		2.4	5.3	7.8	34.1	41.9
CAMROSE	C	Number	2,514	6.8	5.8	12.6	128.2	140.8
		Ratio		2.7	2.3	5.0	51.0	56.0
Camrose	S	Number	474	0.7	0	0.7	23.4	24.1
		Ratio		1.5	0	1.5	49.3	50.8
Camrose	P	Number	1,814	4.4	8.0	12.4	90.6	103.0
		Ratio		2.4	4.4	6.8	50.0	56.8
WETASKIWIN	C	Number	2,330	10.1	10.5	20.6	111.9	132.5
		Ratio		4.3	4.5	8.8	48.0	56.9
Wetaskiwin	S	Number	225	0.2	1.0	1.2	8.8	10.0
		Ratio		0.9	4.4	5.3	39.1	44.4
Wetaskiwin	P	Number	1,558	6.8	5.5	12.3	77.2	89.5
		Ratio		4.4	3.5	7.9	49.6	57.5
ST. PAUL	C	Number	1,689	5.6	10.2	15.8	87.3	103.1
		Ratio		3.3	6.0	9.4	51.7	61.0
Glen Avon	S	Number	402	0.3	3.0	3.3	23.0	26.3
		Ratio		0.8	7.5	8.2	57.2	65.4
St. Paul	P	Number	1,113	3.4	8.0	11.4	56.0	67.4
		Ratio		3.1	7.2	10.2	50.3	60.6





The number of systems having no support staff was greater than was the number having no administrators. Four separate districts and one consolidated district reported having no support personnel. In the remaining twenty-two systems, the ratio varied from 2.3 to 12.1 support personnel per 1,000 students.

The ratio of total non-instructional staff ranged from 0.5 to 14.5 personnel per 1,000 students. Since this category included the categories of total administrators and total support staff, and central office psychologists, guidance counsellors and remedial personnel, the results were very similar to those described for the two former categories. The low non-instructional ratios were found in the separate systems, where there was no support staff and only a part-time administrator. A large ratio was found in the Barons District where there was a full-time teacher aide for eighty-three students.

The instructional component ratio in the counties ranged from 44.7 to 53.6. The districts had a ratio variation of 34.9 persons per 1,000 students. The extremes were Salisbury, with 31.6 instructors per 1,000 students, and Lausana, where 3 instructors for 45 students gave a ratio of 66.7 instructors per 1,000 students. Eight of twenty-one districts had instructional ratios less than any of the county ratios, and three had ratios greater than the county ratios.

The total staff ratio range was very similar to the



ratio range for the instructional personnel in this size group. The counties had ratios ranging from 55.4 to 61.2 staff for each 1,000 students, while the districts ranged from 41.9 to 72.3 persons per 1,000 students. Barons Consolidated had the highest ratio and Salisbury Separate had the lowest ratio.

#### Divisions Having Two or More Enclosed Districts

The data supplied in Table 18 were used to compare the total staff components in divisions surrounding two or more districts with the components in the enclosed districts. The division ratios in this table varied less than did the district ratios.

The division had administrative ratios ranging from 2.4 to 5.1 while the ratios for the districts ranged from 1.3 to 6.3 personnel per 1,000 students. Seven districts reported no support staff, while the remaining districts had ratios as low as 1.9 and as high as 8.9. The divisions had ratios ranging from 3.4 to 7.7 staff members for each 1,000 students.

The non-instructional ratios observed had a large range in both the divisions and the districts. The divisions ranged from 5.8 to 11.5, while the districts ranged from 0.9 to 12.4 staff for each 1,000 students. Nine of the seventeen districts had ratios less than the smallest division ratio and only one district had a ratio greater than the greatest division ratio.



Table 18

Comparison of Total Staff Numbers and Ratios within Geographical Areas Having Three or More Systems (Division Areas)

System	Type of System	No. of Pupils	Total Admin./Supv./Dir.	Total Supp.	Total Non-Inst.	Total Inst.	Total Staff
STURGEON	D	Number Ratio	1,921 9.7 5.1	8.0 4.2	18.7 9.7	84.3 43.9	103.0 53.6
Legal	P	Number Ratio	382 0.5 1.3	0 0	0.5 1.3	18.9 49.5	19.4 50.8
Thibault	P	Number Ratio	610 1.6 2.6	1.5 2.5	3.1 5.1	30.4 49.8	33.5 54.9
St. Albert	P	Number Ratio	1,840 6.2 3.4	8.0 4.4	14.2 7.7	86.0 46.8	100.2 54.5
St. Albert	S	Number Ratio	2,594 10.6 4.1	18.2 7.0	28.8 11.1	125.1 48.2	153.9 59.3
PEACE RIVER	D	Number Ratio	3,297 7.8 2.4	11.3 3.4	19.1 5.8	165.1 50.1	184.2 55.9
Rosary	S	Number Ratio	237 0.5 2.1	0 0	0.5 2.1	10.5 44.4	11.0 46.4
Grimshaw	S	Number Ratio	200 0.4 2.0	0 0	0.4 2.0	8.5 42.5	8.9 44.5
Peace River	S	Number Ratio	534 1.5 2.8	1.0 1.9	2.5 4.7	22.5 42.1	25.0 46.8
Nampa	S	Number Ratio	96 0.3 3.1	0 0	0.3 3.1	3.7 38.6	4.0 41.7
BONNYVILLE	D	Number Ratio	2,507 9.4 3.8	10.2 4.1	19.6 7.8	116.6 46.5	136.2 54.3
Bonnyville	P	Number Ratio	790 2.8 3.5	7.0 8.9	9.8 12.4	35.4 44.8	45.2 57.2
Cold Lake	S	Number Ratio	280 0.8 2.9	1.0 3.6	1.8 6.4	12.9 46.1	14.7 52.5
Grand Centre	S	Number Ratio	190 0.5 2.6	0 0	0.5 2.6	8.9 46.8	9.4 49.5
MEDICINE HAT	D	Number Ratio	809 2.7 3.3	5.6 6.9	9.3 11.5	50.6 62.6	59.9 74.0
Medicine Hat	S	Number Ratio	1,818 6.4 3.5	12.4 6.8	18.8 10.3	89.6 49.5	108.4 59.6
Medicine Hat	P	Number Ratio	5,353 21.8 4.1	29.5 5.5	52.3 9.8	305.0 57.0	357.3 66.8
HIGH PRAIRIE	D	Number Ratio	3,892 11.7 3.0	30.0 7.7	41.7 10.7	172.3 44.3	214.0 55.0
High Prairie	S	Number Ratio	427 1.2 2.8	2.0 4.7	3.2 7.5	17.8 41.7	21.0 49.2
McLennan	S	Number Ratio	225 0.2 0.9	0 0	0.2 0.9	9.8 43.6	10.0 44.4
SPIRIT RIVER	D	Number Ratio	2,036 5.5 2.7	14.0 6.9	19.5 9.6	98.9 48.6	118.4 58.2
Spirit River	S	Number Ratio	67 0.1 1.5	0.1 1.5	0.2 3.0	2.9 43.3	3.1 46.3
Falher	Con	Number Ratio	547 1.3 2.4	1.5 2.7	2.8 5.1	23.7 43.3	26.5 48.5





With the exception of the Medicine Hat Division, the instructional ratios ranged from 43.9 to 50.1. Medicine Hat with 809 students reported the highest ratio of instructional staff with 62.6 instructors per 1,000 students. The districts had an instructional staff ratio ranging from 38.6 to 49.8. The Medicine Hat Public District was the exception with a ratio of 57.0. Of the twenty-three systems included in the group, nineteen had an instructional staff ratio between 41.7 and 49.8 instructors for each 1,000 students.

The total staff ratio for the divisions and districts reported in Table 18 had a relatively small range. With the exception of the Medicine Hat Division, which reported a ratio of 74.0 staff members for each 1,000 students, the staffing ratios for the divisions ranged from 53.6 to 58.2. The district staff ratios varied more with eleven of seventeen reporting ratios less than any of the divisions. Three of the districts reported ratios greater than any found in the divisions. The entire range of the district ratios was from 41.7 to 66.8 staff members per 1,000 students.

#### Counties Having One Enclosed District

Table 19 presents the numbers and ratios of total staff components for the county areas having one enclosed district. There were twenty-six systems included in this group; thirteen counties, nine separate districts and



Comparison of Total Staff Numbers and Ratios within Geographical Areas Having Two Systems (County Areas)

System	Type of System		No. of Pupils	Total Admin./Supv./Dir.	Total Supp.	Total Non-Instr.	Total Instr.	Total Staff
PARKLAND	C	Number Ratio	5,844	17.2 2.9	24.4 4.2	42.6 7.3	258.1 44.2	300.7 51.5
Drayton Valley	S	Number Ratio	414	0.6 1.5	0 0	0.6 1.5	17.4 42.0	18.0 43.5
LEDUC	C	Number Ratio	4,877	17.2 3.5	26.0 5.3	44.2 9.1	243.8 50.0	288.0 59.1
Devon	P	Number Ratio	680	2.0 2.9	2.5 3.7	4.5 6.6	28.0 41.2	32.5 47.8
PONOKA	C	Number Ratio	3,764	10.7 2.8	12.5 3.3	24.2 6.4	193.3 51.4	217.5 57.8
Ponoka	S	Number Ratio	206	0.5 2.4	0 0	0.5 2.4	10.5 51.0	11.0 53.4
LAC ST. ANNE	C	Number Ratio	3,720	12.1 3.3	17.0 4.6	29.1 7.8	185.9 50.0	215.0 57.8
Whitecourt	S	Number Ratio	109	0.1 0.9	0 0	0.1 0.9	5.9 54.1	6.0 55.1
FLAGSTAFF	C	Number Ratio	2,611	8.2 3.1	12.0 4.6	20.2 7.7	127.7 48.9	147.9 56.6
Killam	S	Number Ratio	127	0.5 3.9	0 0	0.5 3.9	5.7 44.9	6.2 48.8
VERMILION RIVER	C	Number Ratio	2,454	7.1 2.9	9.5 3.9	16.6 6.9	128.1 52.2	144.7 59.0
Vermilion	S	Number Ratio	349	0.9 2.6	1.0 2.9	1.9 5.4	16.3 46.7	18.2 52.2
MINBURN	C	Number Ratio	2,283	8.3 3.6	28.2 12.4	37.5 16.4	118.7 52.0	156.2 68.4
St. Martin's	S	Number Ratio	261	0.9 3.5	0.6 2.3	1.5 5.8	12.3 47.1	13.8 52.8
WARNER	C	Number Ratio	2,052	4.4 2.1	5.5 2.7	9.9 4.8	111.5 54.4	121.4 59.2
Stirling	P	Number Ratio	193	0.3 1.6	0 0	0.3 1.6	9.7 50.2	10.0 51.8
WHEATLAND	C	Number Ratio	1,959	6.5 3.3	11.6 5.9	18.1 9.2	91.0 46.6	109.1 55.7
St. Rita's	S	Number Ratio	129	0 0	0 0	0 0	6.0 46.3	6.0 46.3
NEWELL	C	Number Ratio	1,651	4.0 2.4	8.5 5.2	13.1 7.9	90.1 54.6	103.2 62.5
Brooks	P	Number Ratio	1,346	6.6 4.9	5.5 4.1	12.1 9.0	63.5 47.2	75.6 56.2
FORTY MILE	C	Number Ratio	1,391	3.7 2.7	9.2 6.6	12.9 9.3	79.3 57.0	92.2 66.3
Bow Island	S	Number Ratio	241	0.8 3.3	1.0 4.2	1.8 7.5	11.2 46.5	13.0 53.9
PAINTEARTH	C	Number Ratio	1,220	4.5 3.7	8.0 6.6	13.5 11.1	69.0 56.6	82.5 67.6
Theresetta	S	Number Ratio	204	0.5 2.6	0.4 2.0	0.9 4.4	11.5 56.4	12.4 60.8
STETTLER	C	Number Ratio	1,036	2.0 1.9	4.4 4.3	6.4 6.2	48.5 46.8	54.9 53.0
Stettler	P	Number Ratio	1,493	6.6 4.4	8.0 5.4	14.6 9.8	81.4 54.6	96.0 64.3



four public districts.

The size of the ratios within the administrative component varied within both the districts and the counties. Seven of the nine counties surrounding separate districts had larger total administrative ratios than did the enclosed districts. The public districts had larger ratios than the surrounding counties in two areas and smaller ratios in two other areas.

The total support staff component had greater differences between the counties and the districts than did the administrative component. While all counties had support staff, six of thirteen districts had no support staff. The six included five separate districts and one public district. Of the remaining seven districts, only Stettler had support staff ratios larger than those of the county surrounding the district.

The total non-instructional staff was a composite of the total administrative component and the total support component. The results observed in this category were thus somewhat similar to those found above. The range of the ratios for the counties and districts overlapped; the county being 4.8 to 16.4 and the district being 0.9 to 9.8. In only two cases were the district non-instructional ratios found to be greater than the county ratios. The two districts having the larger ratios were both public districts.

The instructional ratios were more consistent for



the twenty-six systems listed in Table 19 than they were in either of Tables 17 or 18. The range of ratios was from 41.2 to 57.0 instructors per 1,000 students. In eleven of the thirteen pairs of systems, the county had a larger ratio than did the district.

A comparison of the total staff ratios showed the counties to have more staff personnel per 1,000 students than most of the districts they surrounded. The range for the county ratios was 51.6 to 68.4, whereas the district ratios ranged from 43.5 to 64.3. Even though the ratios overlap, the ratios for the county areas were greater than the ratios in the enclosed district for every pair of systems except the Stettler systems.

#### Divisions Having One Enclosed District

The data in Table 20 were used to compare the numbers and ratios of total staff personnel in a division enclosing one district to the surrounded district. The table provided few distinct points of marked contrast.

The administrative ratios were found to overlap considerably. The division ratios varied between 2.4 and 4.8. The district ratios ranged from 1.9 to 4.2. Eight of the eleven pairs of systems in this size group had greater ratios in the divisions than in the districts.

The three separate systems in this group reported no support personnel. Of the eight districts having support staff, six had ratios which were less than the





Table 20

Comparison of Total Staff Numbers and Ratios within Geographical  
Areas Having Two Systems (Division Areas)

System	Type of System		No. of Pupils	Total Admin. / Supv. / Dir.	Total Supp.	Total Non-Instr.	Total Instr.	Total Staff
TABER	D	Number Ratio	2,970	10.0 3.4	21.0 7.1	32.0 10.8	144.5 48.7	176.5 52.4
Taber	S	Number Ratio	571	1.1 1.9	0 0	1.1 1.9	25.8 45.3	26.9 47.1
WESTLOCK	D	Number Ratio	2,795	8.3 3.0	12.0 4.3	21.3 7.6	123.7 44.3	145.0 51.9
Westlock	S	Number Ratio	304	0.7 2.3	1.0 3.3	1.7 5.6	14.3 47.0	16.0 52.6
WAINWRIGHT	D	Number Ratio	2,123	8.9 4.2	9.0 4.2	17.9 8.4	115.8 54.6	133.7 63.0
Wainwright	S	Number Ratio	251	0.6 2.4	1.0 4.0	1.6 6.4	10.6 42.2	12.2 48.6
EAST SMOKY	D	Number Ratio	1,848	5.3 2.9	9.0 4.9	14.3 7.7	81.1 43.9	95.4 51.6
Valleyview	S	Number Ratio	251	1.0 4.0	1.0 4.0	2.0 8.0	19.0 75.7	21.0 83.7
FAIRVIEW	D	Number Ratio	1,610	3.9 2.4	6.0 3.7	9.9 6.2	75.0 46.4	84.9 52.7
St. Thomas More	S	Number Ratio	430	1.1 2.6	1.0 2.3	2.1 4.9	20.4 47.5	22.5 52.3
DRUMHELLER VALLEY	D	Number Ratio	1,802	6.6 3.7	7.9 4.4	14.5 8.1	86.7 48.1	101.2 56.2
Drumheller Valley	S	Number Ratio	296	1.2 4.0	2.3 7.8	3.5 11.8	10.9 37.0	14.4 48.7
FORT VERMILION	D	Number Ratio	1,798	7.7 4.3	9.0 5.0	16.7 9.3	88.3 49.1	105.0 58.4
Fort Vermilion	S	Number Ratio	170	0.5 2.9	1.0 5.9	1.5 8.8	5.7 33.5	7.2 42.4
PINCHER CREEK	D	Number Ratio	1,526	4.8 3.2	14.0 9.2	18.8 12.3	79.2 51.9	98.0 64.2
St. Michael's	S	Number Ratio	495	1.4 2.8	2.5 5.1	3.9 7.9	22.7 46.0	26.6 53.7
PROVOST	D	Number Ratio	1,104	2.7 2.5	8.0 7.3	10.7 9.7	55.8 50.5	66.5 60.2
Provost	S	Number Ratio	289	0.7 2.4	0 0	0.7 2.4	14.4 49.8	15.1 52.3
ACADIA	D	Number Ratio	1,059	5.1 4.8	4.0 3.8	9.1 8.6	51.4 48.5	60.5 57.1
Assumption	S	Number Ratio	131	0.3 2.3	0 0	0.3 2.3	6.9 52.7	7.2 55.0
SULLIVAN LAKE	D	Number Ratio	255	0.6 2.4	2.5 9.8	3.1 12.2	13.7 53.9	16.8 65.9
Hanna	P	Number Ratio	898	2.1 2.3	4.2 4.7	6.3 7.0	47.7 53.1	54.0 60.1



surrounding division. The ratio range of support staff for these divisions was from 3.7 to 9.2, while the districts employing support personnel had ratios ranging from 2.3 to 7.8 support staff per 1,000 students.

The non-instructional component had some large ratios because of large support staff ratios. The three systems reporting no support staff had extremely low non-instructional ratios when compared to the systems having support staff. The systems having the highest support staff ratios were also found to have the highest non-instructional ratios. In general, the divisions had larger ratios than did the enclosed districts. Nine of the eleven divisions reported higher ratios than the corresponding enclosed district.

The instructional ratios varied less in the divisions than in the districts reported in Table 20. Two districts reported ratios of 33.4 and 37.0 and one reported a ratio of 75.7. The remainder of the districts had a ratio range from 42.2 to 53.1. The ratios for the divisions ranged from 43.9 to 54.6. Even with the similarities just described, eight of these eleven divisions had instructional ratios greater than the enclosed districts.

In the eleven areas examined in Table 20, nine divisions had total staff ratios greater than the enclosed district. With the exception of Valleyview, which had an instructional ratio of 75.7, and thus a total staff ratio



of 83.7, the total staff ratio range for all systems was 42.4 to 65.9 staff members for each 1,000 students.

### Discussion

The data from Tables 16 to 20 showed that the divisions and counties had higher ratios in most of the total staff categories than did the districts. Districts were found within thirty-seven of the fifty-eight counties and divisions in the province. Of these thirty-seven county and division systems, twenty-four recorded higher administrative ratios than did any of the districts which they surrounded. In only seven separate systems and six public systems were the administrative ratios found to be greater than the county or division enclosing them.

The other categories showed a more marked distinction between the counties and divisions and the enclosed districts. Only in nine of the thirty-seven areas examined did one of the enclosed districts have total support ratios higher than the county or division surrounding it. Twenty-six of the divisions or counties had higher ratios in non-instructional, instructional and total staff components than did the enclosed operating districts. The total result of this finding was that the county and division areas were, in most cases, supplying more staff per 1,000 students than were the separate or public districts.





## SUMMARY OF CHAPTER FOUR

The analysis reported in this chapter provided information related to subproblems one to three inclusive. In these subproblems, an overview was given to the types of jurisdictions used in the study. From the overall view it was apparent that the number of students in each type of jurisdiction was not the variable upon which the number of categories of staff was dependent.

The decrease in the ratio of all categories of staff components for the separate system might lead to the conclusion that the number of pupils in the jurisdiction was a determining factor. However, the variations in the size of the other three jurisdictions and the fluctuations in the ratios raised questions about the effect of the size of the jurisdiction on the size of the ratio.

The size of the school system was found to be a factor determining the number of categories occupied in central office, in the in-school staff and in the total staff employed. Since the counties and divisions were usually larger than the separate and the consolidated districts, and in some cases larger than the public districts, the counties and divisions frequently offered more services than did the separate or consolidated districts. The public districts were often of comparable size to the divisions and counties and usually offered



comparable services.

The ratios of staff employed in each category had some variations between a county or division and the enclosed districts but in many cases it was relatively small. Even with the small variation, the county or division usually had a larger ratio than the districts it surrounded. The one situation where the county or divisional system did not have the larger ratios was where it surrounded large separate and public districts with coterminous boundaries.



## Chapter 5

### COMPARISONS OF AREAS HAVING DIFFERENTIATED AND INTEGRATED SYSTEMS

The data pertaining to the numbers and ratios of central office, in-school and total staff components for areas of similar size having differentiated and integrated systems are represented in this chapter. An area having differentiated systems contained systems in either a county or a division and all the enclosed districts. The areas have been divided into four categories by size: 4,000 or more students, 3,000 to 3,999 students, 2,000 to 2,999 students and fewer than 2,000 students. Weighted mean numbers and ratios for each size category were found in order to facilitate comparisons. The weighted means were calculated by dividing the total number of pupils in the particular size category by the total number of personnel in each staff category.

#### COMPARISON OF CENTRAL OFFICE STAFF

##### Areas Serving 4,000 or More Students

Table 21 presents the central office staff ratios and numbers for areas with a pupil population greater than 4,000 students. Included in this category were twelve



Table 21

Comparison of Numbers and Ratios of Central Office Staff  
in Differentiated and Integrated County and  
Division Areas of 4,000 or More Pupils

Area		No. of Pupils	Admin. / Supv. / Dir.	Psy. / Guid. / Rem.	Sec. / Cler.	Total CO
DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS						
Lethbridge	Number	13,685	12.8	1.0	15.0	28.8
	Ratio		0.9	0.1	1.1	2.1
Red Deer	Number	12,009	12.1	1.0	12.0	25.0
	Ratio		1.0	0.1	1.0	2.1
Strathcona	Number	10,299	7.0	1.0	9.3	17.3
	Ratio		0.7	0.1	0.9	1.7
Medicine Hat	Number	7,980	9.5	2.0	8.5	20.0
	Ratio		1.2	0.3	1.1	2.5
Sturgeon	Number	7,347	6.0	1.0	10.0	17.0
	Ratio		0.8	0.1	1.4	2.3
Grande Prairie	Number	7,133	5.0	0	9.5	14.5
	Ratio		0.7	0	1.3	2.0
Parkland	Number	6,258	4.0	1.0	3.8	8.8
	Ratio		0.6	0.2	0.6	1.4
Leduc	Number	5,557	5.0	1.0	2.0	8.0
	Ratio		0.9	0.2	0.4	1.4
Camrose	Number	4,802	3.1	0	5.5	8.6
	Ratio		0.7	0	1.2	1.8
High Prairie	Number	4,544	3.0	0	4.0	7.0
	Ratio		0.7	0	0.9	1.4
Peace River	Number	4,365	3.0	0	2.5	5.5
	Ratio		0.7	0	0.6	1.3
Wetaskiwin	Number	4,113	4.0	0	5.0	9.0
	Ratio		1.0	0	1.2	2.2
MEANS	Number	7,343	6.2	0.7	7.3	14.1
	Ratio		0.8	0.1	1.0	1.9
DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM						
Yellowhead	Number	5,075	4.0	0	6.0	10.0
	Ratio		0.8	0	1.2	2.0
Calgary	Number	4,280	3.5	0	3.0	6.5
	Ratio		0.8	0	0.7	1.5
MEANS	Number	4,678	3.8	0	4.5	8.3
	Ratio		0.8	0	1.0	1.8





areas with differentiated systems and two areas with integrated systems.

The mean ratios for the two types of areas were very similar. Though the ratio range for the administrative personnel in the differentiated systems was found to be 0.6 to 1.2, the mean ratio was 0.8. The administrative ratio in each of the integrated systems was also 0.8. The integrated systems had no psychological, guidance or remedial staff in their central offices. The areas with differentiated systems employed a total of 8.0 personnel in this category but their mean ratio was only 0.1 staff members per 1,000 students.

The variations in the secretarial and clerical ratios for the differentiated systems ranged from 0.4 to 1.4 with a mean ratio of 1.0. This was the same as the mean ratio for the same category in the integrated systems. The similarity of means in all the categories caused the total central office staff mean ratio in the two types of areas to have a difference of only 0.1 staff members for each 1,000 students

#### Areas Serving 3,000 to 3,999 Students

The data in Table 22 allow comparisons of the differentiated and integrated systems in areas having between 3,000 and 3,999 students. The results were even more consistent than the results shown in Table 21. The ratios for areas having differentiated and integrated



Table 22

Comparison of Numbers and Ratios of Central Office Staff in  
Differentiated and Integrated County and Division  
Areas with Pupil Population 3,000-3,999

Area		No. of Pupils	Admin./ Supv./ Dir.	Psy./ Guid./ Rem.	Sec./ Cler.	Total CO
DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS						
Ponoka	Number	3,970	2.0	1.0	2.5	5.5
	Ratio		0.5	0.3	0.6	1.4
Lac St. Anne	Number	3,929	2.0	0	5.0	7.0
	Ratio		0.5	0	1.3	1.8
Bonnyville	Number	3,767	3.9	0	4.0	7.9
	Ratio		1.0	0	1.1	2.1
Taber	Number	3,541	3.0	0	2.0	5.0
	Ratio		0.9	0	0.6	1.4
St. Paul	Number	3,204	1.7	0	3.2	5.0
	Ratio		0.5	0	1.0	1.6
Westlock	Number	3,099	1.0	0	3.0	4.0
	Ratio		0.3	0	1.0	1.3
MEANS	Number	3,585	2.3	0.2	3.3	5.7
	Ratio		0.6	0.1	0.9	1.6
DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM						
Lacombe	Number	3,738	3.0	0	3.0	6.0
	Ratio		0.8	0	0.8	1.6
Foothills	Number	3,286	2.0	1.0	5.0	8.0
	Ratio		0.6	0.3	1.5	2.4
Willow Creek	Number	3,125	1.0	0	2.0	3.0
	Ratio		0.3	0	0.6	1.0
MEANS	Number	3,383	2.0	0.3	3.3	5.7
	Ratio		0.6	0.1	1.0	1.6



systems had very similar ranges and means.

All categories, except secretarial and clerical, had identical mean ratios in both the differentiated and integrated systems. The mean secretarial and clerical component ratio in the differentiated systems was 0.1 greater than that of the corresponding ratio in the integrated systems.

#### Areas Serving 2,000 to 2,999 Students

The ratios and numbers of central office staff for areas serving 2,000 to 2,999 pupils are shown in Table 23. The range of the ratios in each category, except the category of psychologists, guidance counsellors and remedial staff, reported in Table 23 was larger than the range of comparable categories in areas having greater student numbers (Tables 21 and 22). The overall mean ratios were approximately the same size as those reported in the previous two tables.

The mean ratio of the administrative/supervisory/director staff was 0.8 for the areas having differentiated systems and 1.0 for areas having one system. More integrated systems had psychological, guidance and remedial staff than did the areas having differentiated systems. Yet, the number of staff members per 1,000 students in the two types of areas was relatively the same--0.2 for the integrated systems and 0.1 for the differentiated areas. Although the integrated systems had twice as many personnel





Table 23

Comparison of Numbers and Ratios of Central Office Staff in  
Differentiated and Integrated County and Division  
Areas with Pupil Population 2,000-2,999

Area		No. of Pupils	Admin. / Supv. / Dir.	Psy. / Guid. / Rem.	Sec. / Cler.	Total CO
DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS						
Newell	Number	2,997	3.0	0.6	4.0	7.6
	Ratio		1.0	0.2	1.3	2.5
Vermilion River	Number	2,803	2.2	0	2.5	4.7
	Ratio		0.8	0	0.9	1.7
Flagstaff	Number	2,738	2.2	0	2.0	4.2
	Ratio		0.8	0	0.7	1.5
Spirit River	Number	2,650	2.0	0	3.0	5.0
	Ratio		0.8	0	1.1	1.9
Minburn	Number	2,544	2.2	1.0	1.0	4.2
	Ratio		0.9	0.4	0.4	1.7
Stettler	Number	2,529	3.0	0	5.0	8.0
	Ratio		1.2	0	2.0	3.2
Wainwright	Number	2,374	2.2	0	2.5	4.7
	Ratio		0.9	0	1.1	2.0
Warner	Number	2,245	1.0	0	1.5	2.5
	Ratio		0.5	0	0.7	1.1
East Smoky	Number	2,099	1.0	0	2.0	3.0
	Ratio		0.5	0	1.0	1.4
Drumheller Valley	Number	2,098	2.5	0	2.4	4.9
	Ratio		1.2	0	1.1	2.3
Wheatland	Number	2,088	2.0	0	2.0	4.0
	Ratio		1.0	0	1.0	1.9
Fairview	Number	2,040	1.0	0	3.0	4.0
	Ratio		0.5	0	1.5	2.0
Pincher Creek	Number	2,021	1.2	0	1.5	2.7
	Ratio		0.6	0	0.7	1.3
MEANS	Number	2,402	2.0	0.1	2.5	4.6
	Ratio		0.8	0.1	1.0	1.9
DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM						
Cardston	Number	2,958	2.0	1.0	2.0	5.0
	Ratio		0.7	0.3	0.7	1.7
Rocky Mountain	Number	2,796	2.0	0	2.0	4.0
	Ratio		0.7	0	0.7	1.4
Athabasca	Number	2,538	2.0	1.0	4.5	7.5
	Ratio		0.8	0.4	1.8	3.0
Barrhead	Number	2,471	2.0	0	2.0	4.0
	Ratio		0.8	0	0.8	1.6
Lac La Biche	Number	2,265	2.0	0	3.0	5.0
	Ratio		0.9	0	1.3	2.2
Beaver	Number	2,247	4.0	1.0	2.0	7.0
	Ratio		1.8	0.5	0.9	3.1
Three Hills	Number	2,102	2.5	0	2.0	4.5
	Ratio		1.2	0	1.0	2.1
MEANS	Number	2,482	2.4	0.4	2.5	5.3
	Ratio		1.0	0.2	1.0	2.1



per 1,000 in this category, still it represents a low level of services. Even though the range in the integrated systems was from 0.7 to 1.8 and in the differentiated systems the ratio range was from 0.4 to 2.0 the mean ratios were the same. The total central office staff in the differentiated areas ranged from 1.1 to 3.2. The integrated areas ranged from 1.4 to 3.1.

The total central office staff mean ratios for the areas were 1.9 and 2.1 respectively.

#### Areas Serving Fewer Than 2,000 Students

Table 24 shows the relationship between the central office staff in the county and division areas having differentiated and integrated systems where the pupil population was less than 2,000. Within this group were six differentiated areas and nine integrated areas.

The administrative category showed greater variations in mean ratios between types of areas than did the psychological/guidance/remedial component or the secretarial/clerical component. The mean administrative ratio for the differentiated areas was 0.9, while for the integrated areas the mean administrative ratio was only 0.6 personnel per 1,000 students. In the psychological/guidance/remedial category, one of the differential areas had one person employed giving a mean ratio of 0.1. The integrated systems reported no personnel employed in this category.



Table 24

Comparison of Numbers and Ratios of Central Office  
Staff in Differentiated and Integrated County and  
Division Areas with Fewer Than 2,000 Pupils

Area		No. of Pupils	Admin./ Supv./ Dir.	Psy./ Guid./ Rem.	Sec./ Cler.	Total CO
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>						
Fort Vermilion	Number	1,968	3.2	0	2.0	5.2
	Ratio		1.6	0	1.0	2.6
Forty Mile	Number	1,632	1.0	0	3.5	4.5
	Ratio		0.6	0	2.1	2.8
Paintearth	Number	1,424	0.5	1.0	4.0	5.5
	Ratio		0.4	0.7	2.8	3.9
Provost	Number	1,393	1.2	0	0	1.2
	Ratio		0.9	0	0	0.9
Acadia	Number	1,190	1.2	0	2.0	3.2
	Ratio		1.0	0	1.7	2.7
Sullivan Lake	Number	1,153	0.6	0	0.7	1.3
	Ratio		0.5	0	0.6	1.1
MEANS	Number	1,460	1.3	0.2	2.0	3.5
	Ratio		0.9	0.1	1.4	2.4
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>						
Lamont	Number	1,875	1.0	0	3.0	4.0
	Ratio		0.5	0	1.6	2.1
Crownsnest Pass	Number	1,652	1.0	0	0.5	1.5
	Ratio		0.6	0	0.3	0.9
Vulcan	Number	1,651	1.0	0	1.5	2.5
	Ratio		0.6	0	0.9	1.5
Two Hills	Number	1,629	1.0	0	3.0	4.0
	Ratio		0.6	0	1.8	2.5
Thorhild	Number	1,616	1.0	0	1.0	2.0
	Ratio		0.6	0	0.6	1.2
Smoky Lake	Number	1,360	1.0	0	2.5	3.5
	Ratio		0.7	0	1.8	2.6
Neutral Hills	Number	824	0.5	0	3.0	3.5
	Ratio		0.6	0	3.6	4.3
Starland	Number	692	0.5	0	1.0	1.5
	Ratio		0.7	0	1.5	2.2
Berry Creek	Number	249	0.3	0	0	0.3
	Ratio		1.2	0	0	1.2
MEANS	Number	1,283	0.8	0	1.7	2.5
	Ratio		0.6	0	1.3	2.0



The mean ratio of secretarial and clerical personnel in differentiated areas was 1.4 while the integrated areas had a mean ratio of 1.3 secretaries per 1,000 students. The higher mean ratios in all central office categories in the areas with differentiated systems resulted in these areas having 0.4 more central office staff per 1,000 students than the integrated areas.

### Discussion

An examination of the central office components for all areas having differentiated and integrated systems showed very close mean ratios in all components regardless of the size of the area being used. However, in both the differentiated and the integrated areas, the areas of size 3,000 to 3,999 had mean ratios as low or lower than ratios in corresponding categories in any other size group.

### COMPARISON OF IN-SCHOOL STAFF

Tables 25 to 28 compare the in-school staff in differentiated county or division areas to those in areas of similar size having one integrated system.

#### Areas Serving 4,000 or More Students

Table 25 compares the areas with more than 4,000 students enrolled. Of the seven categories of in-school staff used, the variation between the mean ratios for the differentiated areas and the integrated areas was no





Table 25

Comparison of Numbers and Ratios of In-School Staff in Differentiated and Integrated County and Division Areas Having 4,000 or More Pupils

Area		No. of Pupils	P.T.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>									
Lethbridge	Number	13,685	35.2	75.5	13.0	28.4	56.0	19.5	606.5
	Ratio		2.6	5.5	1.0	2.1	4.1	1.4	44.3
Red Deer	Number	12,009	30.0	47.0	14.0	21.1	41.0	6.0	578.0
	Ratio		2.5	3.9	1.2	1.8	3.4	0.5	48.1
Strathcona	Number	10,299	26.5	61.8	12.0	3.5	36.1	25.7	404.5
	Ratio		2.6	6.0	1.2	0.3	3.5	2.5	39.3
Medicine Hat	Number	7,980	21.4	39.0	7.0	20.0	36.1	2.9	405.6
	Ratio		2.7	4.9	0.9	2.5	4.5	0.4	50.8
Sturgeon	Number	7,347	22.6	28.7	5.5	16.2	22.1	6.6	329.4
	Ratio		3.1	3.9	0.8	2.2	3.0	0.9	44.8
Grande Prairie	Number	7,133	14.7	28.8	1.0	9.3	27.6	1.2	307.3
	Ratio		2.1	4.0	0.1	1.3	3.9	0.2	43.1
Parkland	Number	6,258	13.8	20.6	3.3	6.3	17.3	3.3	255.3
	Ratio		2.2	3.3	0.5	1.0	2.8	0.5	40.8
Leduc	Number	5,557	14.2	26.5	12.0	10.8	26.0	0.5	246.0
	Ratio		2.6	4.8	2.2	1.9	4.7	0.0	44.3
Camrose	Number	4,802	8.8	8.3	2.0	3.6	10.3	3.0	217.0
	Ratio		1.8	1.7	0.4	0.8	2.1	0.6	45.2
High Prairie	Number	4,544	10.1	28.0	0	0	13.3	14.7	283.0
	Ratio		2.2	6.2	0	0	2.9	3.2	62.3
Peace River	Number	4,364	7.5	9.8	1.0	4.0	9.8	0	187.0
	Ratio		1.7	2.3	0.2	0.9	2.3	0	42.9
Wetaskiwin	Number	4,113	13.1	12.0	2.0	6.0	11.0	1.0	179.0
	Ratio		3.2	2.9	0.5	1.5	2.7	0.2	43.5
MEANS	Number	7,343	18.2	32.2	6.1	10.8	25.6	7.0	333.2
	Ratio		2.4	4.4	0.8	1.5	3.5	1.0	45.4
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>									
Yellowhead	Number	5,075	17.1	18.9	4.0	8.0	12.8	6.1	224.0
	Ratio		3.4	3.7	0.8	1.6	2.5	1.2	44.1
Calgary	Number	4,280	13.0	20.5	2.0	7.5	11.5	9.0	196.6
	Ratio		3.0	4.8	0.5	1.8	2.7	2.1	45.9
MEANS	Number	4,678	15.1	19.7	3.0	7.8	12.2	7.6	210.3
	Ratio		3.2	4.2	0.6	1.7	2.6	1.6	45.0



smaller than 0.2 for every category. The in-school administrator (F.T.E.) category showed the integrated areas with a mean ratio of 3.2 while the differentiated area had a ratio of 2.4 personnel per 1,000 students. The differentiated areas had 4.4 support staff per 1,000 students which was a ratio 0.2 greater than the corresponding ratio in the integrated areas.

The mean ratio of guidance counsellors in differentiated areas was 0.8 counsellors per 1,000 pupils. One area employed no personnel in this category. The integrated areas had counsellors employed, but had a mean ratio of only 0.6 persons per 1,000 students. One differentiated area had no librarians while the other areas reported ratios varying from 0.3 to 2.5 with a mean ratio of 1.5 librarians for each 1,000 students.

Every school area having more than 4,000 students had secretarial and clerical staff in the schools but the differentiated areas, with 3.5 clerical personnel per 1,000 students, had a higher mean ratio than did the integrated areas with a ratio of 2.6. Eleven of the twelve differentiated areas had in-school aides with ratios ranging from 0.0 to 3.2 aides for each 1,000 students. The mean ratio was 1.0. The two integrated areas had ratios of 2.1 and 1.2 with a mean ratio of 1.6.

The ratio of teachers for each 1,000 students varied within the differentiated areas from 39.3 to 50.8 with one system having 62.3 teachers per 1,000 students.



The mean ratio was 45.4. The two integrated areas had an average of 45.0 teachers for each 1,000 pupils.

Areas Serving 3,000 to  
3,999 Students

The in-school staff for the school areas having between 3,000 and 3,999 students is reported in Table 26. Six differentiated areas and three integrated areas had student populations within this range.

The integrated areas had mean ratios which were greater than those for the differentiated areas in every category except the in-school secretarial and clerical category. The differentiated areas had a mean ratio of 2.7 in the secretarial category, while the integrated areas had a mean ratio of 2.2.

The mean ratio of in-school administrators was 2.5 for the differentiated areas and 2.7 for the integrated systems. The in-school support staff mean ratios were 3.9 and 4.7 for an increase of 0.8 in the integrated systems. The large support staff ratios in the integrated systems resulted from a difference in the ratios of in-school aides. The differentiated areas had an average of 1.2 aides for 1,000 pupils while the integrated systems averaged 2.5 aides per 1,000 students.

The areas having differentiated systems in this size category had guidance counsellors in only fifty percent of the areas whereas the integrated systems had one of three systems without counsellors. The mean ratios





Table 26

Comparison of Numbers and Ratios of In-School Staff within Differentiated and Integrated County and Division Areas with Pupil Population 3,000-3,999

Area		No. of Pupils	F.T.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>									
Ponoka	Number	3,970	9.2	10.0	3.0	6.3	10.0	0	188.0
	Ratio		2.3	2.5	0.8	1.6	2.5	0	47.4
Lac St. Anne	Number	3,929	10.2	12.0	0	3.0	12.0	0	182.0
	Ratio		2.6	3.1	0	0.8	3.1	0	46.3
Bonnyville	Number	3,767	9.6	14.2	0	2.5	10.2	4.0	162.5
	Ratio		2.6	3.8	0	0.7	2.7	1.1	43.1
Taber	Number	3,541	8.1	19.0	1.0	3.5	11.0	8.0	154.5
	Ratio		2.3	5.4	0.3	1.0	3.1	2.3	43.6
St. Paul	Number	3,204	7.6	18.1	0	1.0	8.0	10.0	154.0
	Ratio		2.4	5.6	0	0.3	2.5	3.1	48.1
Westlock	Number	3,099	8.0	11.0	1.0	1.0	7.0	4.0	121.0
	Ratio		2.6	3.6	0.3	0.3	2.3	1.3	39.0
MEANS	Number	3,583	8.8	14.0	0.8	2.9	9.7	4.3	160.3
	Ratio		2.5	3.9	0.2	0.8	2.7	1.2	44.7
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>									
Lacombe	Number	3,738	10.4	10.7	2.0	8.0	8.7	2.0	183.0
	Ratio		2.8	2.9	0.5	2.1	2.3	0.5	49.0
Foothills	Number	3,286	8.3	22.0	2.5	4.0	3.0	19.0	156.5
	Ratio		2.5	6.7	0.8	1.2	0.9	5.8	47.6
Willow Creek	Number	3,125	8.5	15.0	0	4.0	11.0	4.0	156.0
	Ratio		2.7	4.8	0	1.3	3.5	1.3	49.9
MEANS	Number	3,383	9.1	15.9	1.5	5.3	7.6	8.3	165.1
	Ratio		2.7	4.7	0.4	1.6	2.2	2.5	48.8



were 0.2 for the differentiated areas and 0.4 for the integrated areas. Though both of the types of areas had librarians in all areas, the mean ratio for the differentiated areas at 0.8 was only one-half the size of the mean ratio in the integrated areas.

The teacher ratios ranged from 39.0 to 48.1 in the differentiated systems and from 47.6 to 49.9 in the integrated areas. The mean ratio for the integrated areas was 48.8 and for the differentiated areas was 44.7 teachers per 1,000 students.

Areas Serving 2,000 to  
2,999 Students

Table 27 shows the in-school staff in county and division areas having differentiated systems, and in areas having one integrated system. All areas examined in this table had a student population between 2,000 and 2,999 students. Thirteen differentiated and seven integrated areas comprised the groups involved.

The mean ratios in the two types of areas were investigated from the data in this table. Only one category had greater mean ratios in the group of integrated systems than in the areas having differentiated systems. In Table 26 the integrated systems had the greater mean ratios in all but one category.

The in-school administrative staff had a mean ratio of 2.3 for the differentiated areas and 2.2 for the integrated areas. The in-school support staff mean ratios



Table 27

Comparison of Numbers and Ratios of In-School Staff within Differentiated and Integrated County and Division Areas with Pupil Population 2,000-2,999

Area		No. of Pupils	I-T-L I-S Admin	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>									
Newell	Number	2,997	7.6	9.9	1.0	5.0	8.5	1.5	139.2
	Ratio		2.5	3.3	0.3	1.7	2.8	0.5	46.5
Vermilion River	Number	2,803	5.8	8.0	1.3	2.0	8.0	0	132.3
	Ratio		2.1	2.9	0.5	0.7	2.9	0	47.2
Flagstaff	Number	2,738	6.5	10.0	1.0	1.0	7.5	2.5	120.0
	Ratio		2.4	3.7	0.4	0.4	2.7	0.9	43.8
Spirit River	Number	2,650	4.9	13.5	0.5	1.0	6.5	7.0	110.5
	Ratio		1.9	5.1	0.2	0.4	2.5	2.6	41.7
Minburn	Number	2,544	7.0	27.8	3.6	2.0	24.6	3.2	118.0
	Ratio		2.8	10.9	1.6	0.9	9.7	1.3	52.4
Stettler	Number	2,529	5.6	7.4	2.0	1.5	6.4	1.0	115.5
	Ratio		2.2	2.9	0.8	0.6	2.5	0.4	45.7
Wainwright	Number	2,374	7.3	7.5	2.3	3.5	6.5	1.0	117.8
	Ratio		3.1	3.2	1.0	1.5	2.7	0.4	49.6
Warner	Number	2,245	3.7	4.5	1.0	1.5	4.0	0.5	108.0
	Ratio		1.7	2.0	0.5	0.7	1.8	0.2	48.1
East Smoky	Number	2,099	5.3	8.0	0	0	8.0	0	95.5
	Ratio		2.5	3.8	0	0	3.8	0	45.5
Drumheller Valley	Number	2,098	5.3	7.8	1.5	2.0	5.5	2.8	94.0
	Ratio		2.5	3.7	0.7	1.0	2.6	1.3	44.8
Wheatland	Number	2,088	4.5	9.6	0	1.0	0.6	9.0	86.5
	Ratio		2.2	4.6	0	0.5	0.3	4.3	41.4
Fairview	Number	2,040	4.0	4.0	0	1.0	4.0	0	82.5
	Ratio		2.0	2.0	0	0.5	2.0	0	40.4
Pincher Creek	Number	2,021	5.0	15.0	1.0	3.5	7.0	8.0	96.0
	Ratio		2.5	7.4	0.5	1.7	3.5	4.0	47.5
MEANS	Number	2,402	5.6	10.2	1.2	1.9	7.5	2.8	108.7
	Ratio		2.3	4.3	0.5	0.8	3.1	1.2	45.3
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>									
Cardston	Number	2,959	4.6	6.0	0	1.0	5.0	1.0	114.8
	Ratio		1.6	2.0	0	0.3	1.7	0.3	38.8
Rocky Mountain	Number	2,796	7.7	11.0	1.0	5.0	11.0	0	111.0
	Ratio		2.8	3.9	0.4	1.8	3.9	0	39.7
Athabasca	Number	2,538	6.3	10.0	2.0	4.0	9.0	1.0	123.0
	Ratio		2.5	3.9	0.8	1.6	3.6	0.4	48.5
Barrhead	Number	2,471	5.1	6.0	1.0	1.5	6.0	0	99.5
	Ratio		2.1	2.4	0.4	0.6	2.4	0	40.3
Lac La Piche	Number	2,265	5.9	15.5	1.0	1.0	6.0	9.5	97.0
	Ratio		2.6	6.8	0.4	0.4	2.7	4.2	42.8
Beaver	Number	2,247	4.5	5.0	0	3.0	5.0	0	108.0
	Ratio		2.0	2.2	0	1.3	2.2	0	48.1
Three Hills	Number	2,102	3.6	10.2	0	0	4.7	5.5	91.5
	Ratio		1.7	4.9	0	0	2.2	2.6	43.5
MEANS	Number	2,482	5.4	9.4	0.7	2.2	6.7	2.7	101.1
	Ratio		2.2	3.8	0.3	0.9	2.7	1.1	43.3



were not so similar in size. The differentiated areas had a mean ratio of 4.3, while the integrated areas had a mean ratio of 3.8. Most of these variations occurred because of the differences in ratios in the secretarial and clerical category. The differentiated areas reported 3.1 and the integrated areas 2.7 personnel per 1,000 students in the secretarial and clerical category.

The in-school aides category showed only slight variations between the mean ratios of the two areas. The areas having differentiated systems reported 1.2 aides and the areas with one integrated system reported 1.1 aides for each 1,000 students.

Three areas in each of the differentiated and integrated types of areas did not use in-school guidance personnel. In only one of the twenty areas did the ratio exceed 1.0 counsellors per 1,000 students. The differentiated areas had a mean ratio of 0.5 guidance personnel per 1,000 students, while the integrated systems had a mean ratio of 0.3.

The only category in Table 27 which had greater mean ratios in the integrated systems than in the differentiated areas was that of librarian. The ratio of the one-system areas was 0.9 and of the multiple-system areas, 0.8. One area in each group reported no librarians.

The areas having one integrated system reported a teacher ratio range of 39.7 to 48.5. The areas having differentiated systems had ratios ranging from 41.7 to





52.4 teachers per 1,000 students. The mean ratio of the former group was 43.3 while the mean ratio of the latter group was 45.5.

#### Areas Serving Fewer Than 2,000 Students

Table 28 presents the in-school numbers and ratios for the group of small multiple-system and the one-system areas. The most outstanding variation in mean ratios in this table was in the secretarial and clerical category. Where the multiple-system areas reported a mean ratio of 3.2, the integrated areas had a mean ratio of 2.6 clerical personnel employed per 1,000 students. The difference in ratios was somewhat neutralized by the larger proportion of in-school aides found in the integrated systems. The mean ratio for the aides in integrated areas was 1.0, and in differentiated areas was 0.7. This made the total support staff mean ratio in the differentiated areas only 0.3 greater than that in the integrated areas.

The mean ratios in the administrative, guidance and library categories were larger in the one-system areas than in the multiple-system areas. These ratios were 2.7 to 2.5, 0.1 to 0, and 0.9 to 0.3 respectively. Guidance counsellors, librarians and in-school aides were absent in many of the areas used in this table.

The range of teacher ratios was similar in both types of areas. The multiple-system areas ranged from 41.6 to 48.9 teachers for each 1,000 students. The mean



Table 28

Comparison of Numbers and Ratios of In-School Staff in Differentiated and Integrated County and Division Areas with Fewer Than 2,000 Pupils

Area		No. of Pupils	F.F.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./Cler.	I-S Aides	Teachers
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>									
Fort Vermilion	Number	1,968	5.3	8.0	0	0	8.0	0	84.0
	Ratio		2.7	4.1	0	0	4.1	0	42.7
Forty Mile	Number	1,632	3.5	6.7	0	0	6.7	0	80.0
	Ratio		2.1	4.1	0	0	4.1	0	49.0
Paintearth	Number	1,424	4.5	4.2	0	2.0	3.2	1.0	76.0
	Ratio		3.2	3.0	0	1.4	2.2	0.7	53.4
Provost	Number	1,393	2.2	7.0	0	0	5.0	2.0	61.5
	Ratio		1.6	5.0	0	0	3.5	1.4	44.2
Acadia	Number	1,190	4.2	2.0	0	0	2.0	0	49.5
	Ratio		3.5	1.7	0	0	1.7	0	41.6
Sullivan Lake	Number	1,153	2.1	6.0	0	0.5	3.0	3.0	53.5
	Ratio		1.8	5.2	0	0.4	2.6	2.6	46.4
MEANS	Number	1,460	3.6	5.7	0	0.4	4.7	1.0	67.4
	Ratio		2.5	3.9	0	0.3	3.2	0.7	46.2
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>									
Lamont	Number	1,875	6.5	5.0	1.0	3.0	5.0	0	86.2
	Ratio		3.5	2.7	0.5	1.6	2.7	0	46.0
Crowsnest Pass	Number	1,652	4.1	2.5	0.5	2.5	2.5	0	79.0
	Ratio		2.5	1.5	0.3	1.5	1.5	0	47.8
Vulcan	Number	1,651	3.7	8.6	0	0	1.0	7.6	77.2
	Ratio		2.3	5.2	0	0	0.6	4.6	46.8
Two Hills	Number	1,629	5.3	5.0	0	2.5	5.0	0	74.0
	Ratio		3.3	3.1	0	1.5	3.1	0	45.4
Thorhild	Number	1,616	3.5	5.5	0	0	5.5	0	70.0
	Ratio		2.2	3.4	0	0	3.4	0	43.3
Smoky Lake	Number	1,360	4.3	5.0	0	1.0	4.0	1.0	62.0
	Ratio		3.2	3.7	0	0.7	2.9	0.7	45.6
Neutral Hills	Number	824	2.1	6.0	0	1.0	3.0	3.0	40.3
	Ratio		2.6	7.3	0	1.2	3.6	3.6	48.9
Starland	Number	692	1.4	3.0	0	0	3.0	0	29.5
	Ratio		2.0	4.3	0	0	4.3	0	42.6
Berry Creek	Number	249	0.3	1.0	0	0	1.0	0	11.6
	Ratio		1.0	4.0	0	0	4.0	0	46.6
MEANS	Number	1,283	3.5	4.6	0.2	1.1	3.3	1.3	58.9
	Ratio		2.7	3.6	0.1	0.9	2.6	1.0	45.9



teacher ratio was 46.2 for areas having differentiated systems and 45.9 for the areas having one system.

### Discussion

The great fluctuations among the ratios and even among the mean ratios made generalizations questionable. However, a few trends were obvious.

The mean ratios indicated that more secretarial and clerical staff were used in areas having differentiated systems than were used in areas having one integrated system. The mean ratios for the differentiated areas were at least 0.4 secretaries per 1,000 larger in the differentiated areas.

In three of the four size groups the mean administrative ratio was larger by 0.2 or more in the differentiated systems than in the integrated systems.

### COMPARISON OF TOTAL STAFF

The total staff numbers and ratios and mean numbers are presented in Tables 29 to 32. The areas having differentiated systems and those having one integrated area are divided into four size categories with one size category presented in each table.

#### Areas Serving 4,000 or More Students

Table 29 shows that the total staff mean ratios were larger in the integrated systems for every category





Table 29

Comparison of Numbers and Ratios of Total Staff within  
Differentiated and Integrated County and Division  
Areas Having 4,000 or More Pupils

Area		No. of Pupils	Total Admin. Supv./ Dir.	Total Supp.	Total Non- Instr.	Total Instr.	Total Staff
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>							
Lethbridge	Number	13,685	48.0	90.5	139.5	654.1	793.6
	Ratio		3.5	6.6	10.2	47.8	57.9
Red Deer	Number	12,009	42.0	59.0	102.0	578.0	680.0
	Ratio		3.5	4.9	8.5	48.1	56.6
Strathcona	Number	10,299	33.5	71.1	105.6	447.0	552.6
	Ratio		3.3	6.9	10.3	43.4	53.7
Medicine Hat	Number	7,980	30.9	47.5	80.4	445.2	525.6
	Ratio		3.9	6.0	10.1	55.8	65.9
Sturgeon	Number	7,347	28.6	38.7	68.3	344.7	413.0
	Ratio		3.9	5.3	9.3	46.9	56.2
Grande Prairie	Number	7,133	19.7	38.3	58.0	336.6	394.6
	Ratio		2.8	5.4	8.1	47.2	55.3
Parkland	Number	6,258	17.8	24.4	43.2	275.5	318.7
	Ratio		2.8	3.9	6.9	44.0	50.9
Leduc	Number	5,557	19.2	28.5	48.7	271.8	320.5
	Ratio		3.5	5.1	8.8	48.9	57.7
Camrose	Number	4,802	11.9	13.8	25.7	242.2	267.9
	Ratio		2.5	2.9	5.4	50.4	55.8
High Prairie	Number	4,544	13.1	32.0	45.1	199.9	245.0
	Ratio		2.9	7.0	9.9	44.0	53.9
Peace River	Number	4,364	10.5	12.3	22.8	210.3	233.1
	Ratio		2.4	2.8	5.2	48.2	53.4
Wetaskiwin	Number	4,113	17.0	17.0	34.1	197.9	232.0
	Ratio		4.2	4.2	8.3	48.1	56.4
MEANS	Number	7,343	24.4	39.4	64.5	350.2	414.6
	Ratio		3.3	5.4	8.8	47.7	56.5
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>							
Yellowhead	Number	5,075	21.1	24.9	46.0	241.8	287.8
	Ratio		4.2	4.9	9.1	47.7	56.7
Calgary	Number	4,280	16.5	23.5	40.0	210.6	250.6
	Ratio		3.9	5.5	9.4	49.2	58.6
MEANS	Number	4,678	18.8	24.2	43.0	226.2	269.2
	Ratio		4.0	5.2	9.2	48.4	57.6



except the total support category. The mean ratios of the total support category were: differentiated areas, 5.4, and integrated areas, 5.2. The other mean ratios for the areas with one integrated system and areas having differentiated systems were: administrators, supervisors and directors, 4.0 to 3.3, total non-instructional, 9.2 to 8.8, total instructional 48.4 to 47.7 and the total staff 57.6 to 56.5 respectively.

#### Areas Serving 3,000 to 3,999 Students

The areas having one integrated system within the size category 3,000 to 3,999 students had larger mean ratios than did the differentiated areas in every category (see Table 30). The difference between mean ratios for these types of areas was greater than it was in the areas having more than 4,000 students enrolled. The mean ratios of the areas having one integrated system compared to the areas having differentiated systems were: total administrators, supervisors and directors, 3.3 to 3.1; total support, 5.7 to 4.8; total non-instructional, 9.1 to 8.1; total instructional, 52.2 to 48.6; and total staff, 61.3 to 56.6.

#### Areas Serving Fewer Than 3,000 Students

Tables 31 and 32 show the relationships in areas having a student population of 2,000 to 2,999 and fewer than 2,000 respectively. This relationship was the inverse



Table 30

Comparison of Numbers and Ratios of Total Staff within  
Differentiated and Integrated County and Division  
Areas with Pupil Population 3,000-3,999

Area		No. of Pupils	Total Admin. Supv. Dir.	Total Supp.	Total Non- Instr.	Total Instr.	Total Staff
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>							
Ponoka	Number	3,970	11.2	12.5	24.7	203.8	228.5
	Ratio		2.8	3.2	6.2	51.3	57.6
Lac St. Anne	Number	3,929	12.2	17.0	29.2	191.8	221.0
	Ratio		3.1	4.3	7.4	48.8	56.3
Bonnyville	Number	3,767	13.5	18.2	31.7	173.8	205.5
	Ratio		3.6	4.8	8.3	46.1	54.6
Taber	Number	3,541	11.1	21.0	32.1	171.3	203.4
	Ratio		3.1	5.9	9.1	48.4	57.4
St. Paul	Number	3,204	9.3	21.2	30.5	166.3	196.8
	Ratio		2.9	6.6	9.5	51.9	61.4
Westlock	Number	3,099	9.0	14.0	23.0	139.0	162.0
	Ratio		2.9	4.5	7.4	44.9	52.3
MEANS	Number	3,585	11.1	17.3	28.5	174.3	202.9
	Ratio		3.1	4.8	8.1	48.6	56.6
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>							
Lacombe	Number	3,738	13.4	13.7	27.1	194.5	221.6
	Ratio		3.6	3.7	7.3	52.1	59.3
Foothills	Number	3,286	10.3	27.0	38.3	169.1	207.4
	Ratio		3.1	8.2	11.7	51.5	63.1
Willow Creek	Number	3,125	9.5	17.0	26.5	166.5	193.0
	Ratio		3.0	5.4	8.5	53.3	61.8
MEANS	Number	3,383	11.1	19.2	30.6	176.7	207.3
	Ratio		3.3	5.7	9.1	52.2	61.3



Table 31

Comparison of Numbers and Ratios of Total Staff within  
Differentiated and Integrated County and Division  
Areas with Pupil Population 2,000-2,999

Area		No. of Pupils	Total Admin. Supv. / Dir.	Total Supp.	Total Non-Instr.	Total Instr.	Total Staff
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>							
Newell	Number	2,977	10.6	14.0	25.2	153.6	178.8
	Ratio		3.5	4.7	8.4	51.3	59.7
Vermilion River	Number	2,803	8.0	10.5	18.5	144.4	162.9
	Ratio		2.9	3.8	6.6	51.5	58.1
Flagstaff	Number	2,738	8.7	12.0	20.7	133.4	154.1
	Ratio		3.2	4.4	7.6	48.7	56.3
Spirit River	Number	2,650	6.9	16.5	23.4	125.5	148.9
	Ratio		2.6	6.2	8.8	47.4	56.2
Minburn	Number	2,544	9.2	28.8	39.0	131.0	170.0
	Ratio		3.6	11.3	15.3	51.5	66.8
Stettler	Number	2,529	8.6	12.4	21.0	129.9	150.9
	Ratio		3.4	4.9	8.3	51.4	59.7
Wainwright	Number	2,374	9.5	10.0	19.5	126.4	145.9
	Ratio		4.0	4.2	8.2	53.2	61.5
Warner	Number	2,245	4.7	6.0	10.7	121.2	131.9
	Ratio		2.1	2.6	4.8	54.0	58.8
East Smoky	Number	2,099	6.3	10.0	16.3	100.1	116.4
	Ratio		3.0	4.8	7.8	47.7	55.5
Drumheller Valley	Number	2,098	7.8	10.2	18.0	97.6	115.6
	Ratio		3.7	4.9	8.6	46.5	55.1
Wheatland	Number	2,088	6.5	11.6	18.1	97.0	115.1
	Ratio		3.1	5.6	8.7	46.5	55.1
Fairview	Number	2,040	5.0	7.0	12.0	95.4	107.4
	Ratio		2.5	3.4	5.9	46.8	52.7
Pincher Creek	Number	2,021	6.2	16.5	22.7	101.9	124.6
	Ratio		3.1	8.2	11.2	50.4	61.7
MEANS	Number	2,402	7.5	12.7	20.4	119.8	140.2
	Ratio		3.1	5.3	8.5	49.9	58.4
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>							
Cardston	Number	2,958	6.6	8.0	15.6	119.4	135.0
	Ratio		2.2	2.7	5.3	40.3	45.6
Rocky Mountain	Number	2,796	9.7	13.0	22.7	115.3	138.0
	Ratio		3.5	4.7	8.1	41.2	49.4
Athabasca	Number	2,538	8.3	14.5	23.8	129.7	153.5
	Ratio		3.3	5.7	9.4	51.1	60.5
Barrhead	Number	2,471	7.1	8.0	15.1	110.4	125.5
	Ratio		2.9	3.2	6.1	44.7	50.8
Lac La Biche	Number	2,265	7.9	18.5	26.4	104.1	130.5
	Ratio		3.5	8.2	11.7	46.0	57.6
Beaver	Number	2,247	8.5	7.0	16.5	115.5	132.0
	Ratio		3.8	3.1	7.3	51.4	58.7
Three Hills	Number	2,102	6.1	12.2	18.3	105.8	124.1
	Ratio		2.9	5.8	8.7	50.4	59.0
MEANS	Number	2,482	7.7	11.5	19.6	116.3	136.0
	Ratio		3.1	4.6	7.9	46.9	54.8





Table 32

Comparison of Numbers and Ratios of Total Staff within  
Differentiated and Integrated County and Division  
Areas Having Fewer Than 2,000 Pupils

Area		No. of Pupils	Total Admin. Supv./ Dir.	Total Supp.	Total Non- Instr.	Total Instr.	Total Staff
<u>DIVISIONS, COUNTIES AND ENCLOSED DISTRICTS</u>							
Fort Vermilion	Number	1,968	8.2	10.0	18.2	94.0	112.2
	Ratio		4.2	5.1	9.3	47.8	57.0
Forty Mile	Number	1,632	4.5	10.2	14.7	90.5	105.2
	Ratio		2.8	6.3	9.0	55.5	64.5
Paintearth	Number	1,424	5.0	8.4	14.4	80.5	94.9
	Ratio		3.5	5.9	10.1	56.5	66.6
Provost	Number	1,393	3.4	8.0	11.4	70.2	81.6
	Ratio		2.4	5.7	8.2	50.4	58.6
Acadia	Number	1,190	5.4	4.0	9.4	58.3	67.7
	Ratio		4.5	3.4	7.9	49.0	56.9
Sullivan Lake	Number	1,153	2.7	6.7	9.4	61.4	70.8
	Ratio		2.3	5.8	8.2	53.3	61.4
MEANS	Number	1,460	4.9	7.9	12.9	75.8	88.7
	Ratio		3.3	5.4	8.9	51.9	60.8
<u>DIVISIONS AND COUNTIES HAVING ONE INTEGRATED SYSTEM</u>							
Lamont	Number	1,875	7.5	8.0	15.5	87.7	103.2
	Ratio		4.0	4.3	8.3	46.8	55.0
Crowsnest Pass	Number	1,652	5.1	3.0	8.1	84.9	93.0
	Ratio		3.1	1.8	4.9	51.4	56.3
Vulcan	Number	1,651	4.7	10.1	14.8	87.4	102.2
	Ratio		2.8	6.1	9.0	53.0	61.9
Two Hills	Number	1,629	6.3	8.0	14.3	78.7	93.0
	Ratio		3.9	4.9	8.8	48.3	57.1
Thorhild	Number	1,616	4.5	6.5	11.0	76.5	87.5
	Ratio		2.8	4.0	6.8	47.3	54.2
Smoky Lake	Number	1,360	5.3	7.5	12.8	66.7	79.5
	Ratio		3.9	5.5	9.4	49.0	58.4
Neutral Hills	Number	824	2.6	9.0	11.6	45.2	56.8
	Ratio		3.2	10.9	14.1	54.9	68.9
Starland	Number	692	1.9	4.0	5.9	35.1	41.0
	Ratio		2.8	5.8	8.5	50.7	59.3
Berry Creek	Number	249	0.6	1.0	1.6	13.3	14.9
	Ratio		2.4	4.0	6.4	53.6	59.8
MEANS	Number	1,283	4.3	6.3	10.6	63.9	74.6
	Ratio		3.3	4.9	8.3	49.8	58.1



of the relationship found in Tables 29 and 30.

Table 31 indicate that the total administrative mean ratio was the same size in both types of areas. The remaining categories had greater mean ratios in the multiple-system areas than in the areas having one integrated system. These mean ratios were: total support, 5.3 to 4.6; total non-instructional, 8.5 to 7.9; total instructional, 49.9 to 46.9; and total staff, 58.4 to 54.8. The minimum difference between any of these was 0.6.

The mean ratios of the areas with the fewest pupils enrolled are recorded in Table 32. The same overall picture is presented as was indicated in Table 31. The administrative category had identical mean ratios, while the ratios of the other categories, though they were each slightly higher than those in Table 31, followed the same pattern. The mean ratios with the multi-systems listed first were: total support, 5.4 to 4.9; total non-instructional, 8.9 to 8.3; total instructional, 51.9 to 49.8; and total staff, 60.8 to 58.1. The minimum difference between any pair of mean ratios in this size category was 0.5.

### Discussion

The data in Tables 29 to 32 reveal that the mean ratios of neither type of area were consistently high. From the size categories established for this study, the



areas which had more than 3,000 students enrolled had larger mean ratios in the areas which had one integrated system. In the areas with fewer than 3,000 students enrolled, the differentiated systems had the larger mean ratios. Only the administrative category remained relatively the same in both types of areas and relatively consistent in the four different size groups.

### TOTAL STAFF RELATIONSHIPS

Tables 33 to 35 present data which give an overall picture of the multi-system areas in comparison with the integrated system areas. Table 33 shows that with the exception of the slight variation in the mean ratios of educational administrators/supervisors/directors, 1.0 for the differentiated areas and 0.8 for the integrated areas, the ratios for the other central office staff components were all the same.

Table 34 shows some differences between the pairs of mean ratios of in-school staff. However, with the exception of the in-school secretarial and clerical staff and the in-school aides, the differences in the mean ratios were quite small. The additional size of the secretarial and clerical staff in the differentiated systems was partially overcome by the larger ratio of in-school aides in the integrated system areas. The mean ratios of in-school support staff differed by 0.3 persons per 1,000 students in the two types of areas.





Table 33

Comparison of Mean Numbers and Ratios of Central Office Staff in  
Differentiated and Integrated County and Division Areas

Type of Area		No. of Pupils	Admin./ Supv./ Dir.	Psy./ Guid./ Rem.	Sec./ Cler.	Total CO
Differentiated Areas	Number	4,043.6	4.3	0.3	4.4	7.7
	Ratio		1.0	0.07	1.1	1.9
Integrated Areas	Number	2,306.1	1.8	0.2	2.5	4.4
	Ratio		0.8	0.09	1.1	1.9



Table 34

Comparison of Mean Numbers and Ratios of In-School Staff within  
Differentiated and Integrated County and Division Areas

Type of Area		No. of Pupils	F.T.E. I-S Admin.	I-S Supp.	Guid.	Lib.	I-S Sec./ Cler.	I-S Aides	Teachers
Differentiated Areas	Number	4,043.6	9.9	17.2	2.5	4.7	13.6	4.1	183.3
	Ratio		2.4	4.3	0.6	1.2	3.4	1.0	45.3
Integrated Areas	Number	2,306.1	6.0	9.3	0.8	2.7	5.9	3.4	104.7
	Ratio		2.6	4.0	0.4	1.2	2.6	1.5	45.4



The mean ratios for librarians were the same in both areas. The in-school administrator (F.T.E.) mean ratio was 0.2 persons per 1,000 students larger in the integrated areas and the guidance counsellor category was 0.2 larger in the areas having differentiated systems. The mean ratio of teachers in each area was similar in size. The integrated areas had 45.4 teachers for 1,000 students, while the differentiated areas had 45.3 teachers per 1,000 students.

Table 35 was used to compare the mean ratios of the total staff component. The greatest variation in these ratios was in the instructor category where the differentiated areas had 49.0 and the integrated areas had 48.5 instructors for each 1,000 students. The integrated areas had the larger mean ratio of administrators, 3.4 to 3.2; and total staff 57.5 to 57.1. The differentiated areas had the larger mean ratio in total support, 5.3 to 5.0; and total non-instructional staff, 8.6 to 8.5.

#### SUMMARY OF CHAPTER FIVE

The comparisons made in this chapter examined subproblem four. This subproblem was directed specifically at areas of Alberta which operated either one integrated system or a number of differentiated systems. Each of these areas had to include either a county or a division type of jurisdiction. The areas were divided into four size categories to facilitate a comparison of central



Table 35

Comparison of Mean Numbers and Ratios of Total Staff within  
Differentiated and Integrated County and Division Areas

Type of System			No. of Pupils	Total Admin. Supv./ Dir.	Total Supp.	Total Non- Instr.	Total Instr.	Total Staff
Differentiated Areas	Number	4,043.6	13.1	21.3	34.8	196.3	231.0	
	Ratio		3.2	5.3	8.6	48.5	57.1	
Integrated Areas	Number	2,306.1	7.8	11.6	19.6	113.0	132.5	
	Ratio		3.4	5.0	8.5	49.0	57.5	





office, in-school and total staff component categories.

The size and type of area investigated had very little association with the mean ratios found for all categories of central office staff.

The in-school staff components showed ratios which had a range much larger than those reported for the central office staff. Neither type of area had consistently higher mean ratios in most of the in-school categories.

The mean ratios which did show a specific pattern were those for the in-school secretarial and clerical category, and those for the in-school administrative category. The differentiated areas had larger mean ratios in both of these categories.

The total staff ratios in the areas with more than 3,000 students had larger mean ratios in the integrated areas in every category except the total support category. The areas serving fewer than 3,000 students had the larger mean ratios in the multi-system areas in all categories except the administrative category.



## Chapter 6

### SUMMARY AND CONCLUSIONS

#### The Problem

This study attempted to describe the relationships between the type and size of the school system and (1) the number of personnel employed, and (2) the ratio of the number to the size of the school system. The study made two comparisons. It compared a division or county jurisdiction with the operating school districts which each county or division surrounded. It also examined the relationship between a geographical area having two or more differentiated systems and an area of similar size having one integrated system. The area encompassing different systems contained either a division or county and one or more enclosed districts.

#### Examination of the Problem

The sample consisted of 119 school systems within Alberta. The distribution included twenty-nine counties, twenty-nine divisions, nineteen public and consolidated districts and forty-two separate districts. The Northland School Division was omitted from the study because of its vast area and unique problems. Four systems which did not



supply information were included in the population. The final sample included 96.7 percent of the systems approached and 97.5 percent of the student population in the divisions, counties and enclosed districts.

Pertinent data were collected from the school systems by means of a questionnaire answered by the superintendent and/or other officials. Personal interviews and telephone interviews were conducted in order to assist in the collection of information and to ensure that the information supplied was accurate.

To facilitate analysis of the data, the personnel were divided into two basic groups--those working in central office and those working in schools. These groups were then combined to give a total staff component. Four categories of central office, seven categories of in-school, and five categories of total staff personnel were identified. The school systems or areas used in this study were counties or divisions which surrounded districts, the districts which were surrounded, county or division areas which had only one operating school unit, and county or division areas which had more than one operating school unit. Relationships between corresponding categories of personnel were found by determining the number of employees in each category and the ratio of the number employed to the number of students in each of the school systems or areas.





## Findings of the Study

1. Relationship between size of jurisdiction and number of categories. A close examination revealed that though a direct relationship between the size of jurisdiction and the number of categories occupied seemed apparent, there was no clear pattern discernable. Through the tables in Chapter Four, a direct relationship was found between the size of the system within the jurisdiction and the number of categories occupied. An examination of Table 16 showed Assumption with 131 students and personnel in two categories, St. Michael's with 495 students had personnel in four categories and Taber with a pupil population of 2,970 had personnel in all seven of the in-school categories.

2. Relationship between the size of the jurisdiction and the ratio in each category. The relationship between the size of the jurisdiction and the ratio of personnel per 1,000 students in each of the seventeen designated categories was not discernable from the data collected. The ratios varied to such an extent that it was impossible to establish a meaningful pattern between the system size and the ratio of personnel in any one category. The only indication of a pattern was that the separate systems, with an average student population of 472.7 pupils, had the lowest ratios of the four types of jurisdictions in thirteen of seventeen categories. In no



category was the ratio in the separate system the highest.

3. Relationship of the size of central office between districts and surrounding divisions or counties.

The size of the school system was found to have a direct bearing on the number of categories occupied in central office. Since the counties and divisions had the largest average number of students, they offered more personnel resources to their students than did the public, separate or consolidated districts. The public systems had a larger mean system size and offered more services than did the latter two types of systems. With the exception of a few systems, the total central office staff ratios were relatively constant in the systems which employed both administrators and secretaries, but the ratios were lower in the systems offering only one of the two services.

4. Relationship of in-school staff size in districts and surrounding divisions and counties. The divisions and counties had a larger system size than did most of the districts which they surrounded. These larger systems tended to have personnel employed in more of the in-school categories than did the smaller districts. The systems showing the smaller number of in-school staff per 1,000 students were most often the districts. Of the thirty-seven comparisons made between county or division and the enclosed districts, five separate districts, six public districts and one consolidated district had larger



total in-school staff ratios than did the surrounding division or county. Of the twelve districts having the higher ratios, only the Camrose Public and the St. Albert Separate Systems had personnel in all seven categories.

5. Relationship of total staff in districts and surrounding divisions and counties. The total staff component ratios showed the counties and divisions to have the higher ratios in most categories. This meant that the counties and divisions were supplying more staff members per 1,000 students than were the separate and public districts.

6. Comparison of central office staff in areas having integrated and differentiated systems. The total central office components showed very close relationships between the areas which had differentiated systems and those with one integrated system. The administrative category reported a difference of 0.2 and 0.3 administrators per 1,000 students in two of the four size groups. This range in mean ratios was only exceeded by the total central office ratios for the areas having fewer than 2,000 students. The difference on this occasion was 0.4.

7. Comparisons of in-school staff in areas with integrated and differentiated systems. These two types of areas had larger fluctuations of in-school staff than





they had of central office staff. More secretarial and clerical staff were employed in areas which had differentiated systems than in the integrated areas. The administrative component gave indications of being larger in the differentiated areas than in the integrated areas. Comparison of the four size groups revealed that in three of the groups, the teacher ratios were slightly larger in the differentiated areas. The fourth group had a teacher ratio in the integrated system which had 4.1 teachers per 1,000 students more than the areas with differentiated systems.

8. Comparisons of total staff components in areas having integrated and differentiated systems. The total staff components had large variations between the two types of areas investigated. Neither type showed consistently high ratios in the categories. The areas with more than 3,000 students enrolled had larger mean ratios in the areas which operated the integrated systems. The areas with fewer than 3,000 students enrolled had larger mean ratios in the areas which had differentiated systems.

### Conclusions

The findings of this study suggest that the size of the jurisdiction bore little association with (1) the number of categories occupied by staff personnel or (2) the ratio of personnel for each 1,000 students employed in any





one of the designated categories. The size of the school system was one of the factors which determined the number of categories in which educational staff were employed.

The small systems were the ones most often having no personnel employed in the categories designated in this study. No investigation has been made into the advantages the students who have been exposed to these services have over those who have not had such exposure. Many questions are raised about the value of such services. Are the services which are not offered to the smaller systems serving a function in the larger systems important enough to warrant hiring specialists to perform them? Is it possible that teachers can perform the in-school guidance and library functions as part of their regular duties? These are questions which are not considered in this study. The answers to these questions will, nevertheless, affect future staffing practices.

A second aspect which must be considered when examining the findings of this study is the availability of the designated services in the systems. It is quite conceivable that systems the size of Strathcona County or the Lethbridge Public District could have full-time specialists in the system. This is quite impossible in the small systems and any arrangement to share one specialist among a number of districts might pose insurmountable travelling problems. If these specialized services are deemed necessary, it would seem that the



possibility of sharing personnel within the geographical areas already used in this study is an alternative to be considered.

#### Implications of the Findings

One of the findings of the study that has implications for the organization of school systems is that the larger systems have personnel employed in more of the categories designated in this study than do the smaller systems. If the school trustees and the public are concerned with the educational services offered, one alternative to the present situation is to have some of the larger systems share some of their central office personnel with some of the smaller systems. A second possible alternative is to legislate to allow a number of the separate systems to form one educational unit. There could be a number of these units formed throughout the province. Each of these units could have a centralized administration in charge of a number of schools. The unit would have one school board which would control the financial aspects. With a good public relations program, this type of reorganization would probably be acceptable to the public. However, the constitutional guarantee of separate schools would have to be maintained.

The secretarial and clerical staff category showed consistently higher ratios in the areas with differentiated systems than in the areas with one integrated system. If



these were to become an integrated system, it is conceivable that the secretarial staff could decrease in size.

From the similarity in the size of the ratios of total staff personnel employed within the areas offering either differentiated or integrated systems, it is evident that neither type of area has excessively large numbers of personnel. However, if the small systems were to unite with a larger system to become one large system, the duplication of effort could possibly be minimized and the personnel who had been performing the services which were duplications could be used in other areas of need.

#### Recommendations for Further Study

A similar cross-sectional study could study the Alberta systems showing a comparison of the county or division, in combination with the rural districts, with the staff numbers and ratios in the separate and public areas having coterminous boundaries. This could determine the feasibility of uniting all of the systems within the county or division boundaries except the large city or town systems. This would remove the small systems and would leave only large county or division school systems and relatively large public and separate systems in the large centers.

This study examined only the actual services offered by the counties, divisions and districts. A similar study





could be undertaken to discover the educational services that the systems desire to offer. A possible relationship between the services desired by a system and the staff which the system employs could be tested. If the smaller systems see no need for personnel in some of the categories designated in this study then the absence of personnel in these categories is more dependent upon the recognition of a need than on the size of the system.

A comparison of divisions or counties and districts of similar size would allow a comparison of rural and urban systems in terms of staffing practices. Similarly, rural or urban districts could be compared in order to identify different policy priorities in these jurisdictions. From such studies it might be possible to draw conclusions and determine priorities for the most efficient and effective school system in a particular type of district, division or county.

It is quite apparent from this study that the size of schools within any one school system probably has an effect upon the staffing practices within that system. An examination of the impact of the number and size of schools within a system might suggest possible reasons for a variation in staffing practices in different types and sizes of school systems.



## BIBLIOGRAPHY



## BIBLIOGRAPHY

Alberta Department of Education.

- 1940. School Divisions in Alberta: After Three Years. Edmonton: King's Printer.
- 1945. School Divisions in Alberta: Pioneering in School Administration. Edmonton: King's Printer.
- 1950. Annual Report. Edmonton: Queen's Printer.
- 1971. Education Alberta '70: The Sixty-fifth Annual Report of the Department of Education. Edmonton: Queen's Printer.

Alberta Department of Municipal Affairs.

- 1971. In Other Words: An Explanation of the Municipal and School Administration Act. Edmonton: Department of Municipal Affairs.

Anderson, Theodore R., and Seymour Warkov.

- 1961. "Organizational Size and Functional Complexity: A Study of Administration in Hospitals." American Sociological Review, 26:23-28.

Baker, A., and R. Davis.

- 1962. "Ratios of Staff to Line Employees and Stages of Differentiation of Staff Functions." Reported in Peter M. Blau and W. Richard Scott. Formal Organizations. San Francisco: Chandler, 226.

Bendix, R.

- 1956. Work and Authority in Industry. New York: Wiley.

Best, John W.

- 1970. Research in Education. Englewood Cliffs, New Jersey: Prentice-Hall.

Blau, Peter M., and W. Richard Scott.

- 1962. Formal Organizations. San Francisco: Chandler.

Blowers, Thomas A.

- 1969. "A Longitudinal Study of Administrative Ratios in Urban School Systems in Western Canada." Unpublished Master's thesis, The University of Alberta, Edmonton.



Boulding, K. E.

1953. "Toward a General Theory of Growth." Canadian Journal of Economics and Political Science, 19: 326-340.

Brech, E. F.

1965. Organization. London: Longmans, Green and Co. Ltd.

Byrne, T. C.

1957. "Evaluative Criteria of Provincial Leadership in Public Education." The Alberta Journal of Educational Research, 3:180-192.

Campbell, Ronald F., Luvern L. Cunningham, Roderick McPhee, 1970. and Raphael O. Nystrand.  
The Organization and Control of American Schools. Columbus, Ohio: Charles E. Merrill Publishing Company.

Canadian Educational Association.

1964. Clerical Assistance in Canadian Schools. Toronto: Canadian Educational Association.

Caplow, Theodore.

1957. "Organizational Size." Administrative Science Quarterly, 6:484-505.

Carlisle, David H.

1968. "The Growth in the Number of Non-Teaching Personnel in California School Districts." The Journal of Educational Research, 62:67-70.

Carter, Clyde N.

1968. "How Many School Administrators Are Enough?" Nation's Schools, 82:51-57.

Chalmers, John W.

1967. Schools of the Foothills Province. Toronto: The University of Toronto Press.

Dominion Bureau of Statistics.

1966. The Organization and Administration of Public Schools in Canada. Ottawa: Queen's Printer, Catalogue Number 81-535.

Duboyce, R. A.

1970. "A Longitudinal Study of Administrative Ratios in the Edmonton Public School District." Unpublished Master's thesis, The University of Alberta, Edmonton.





- Economic Council of Canada.  
1970. Patterns of Growth. Seventh Annual Review.  
Ottawa: Queen's Printer.
- Etzioni, Amitai.  
1964. Modern Organizations. Englewood Cliffs,  
New Jersey: Prentice-Hall, Inc.
- Fenske, Milton R.  
1968. "The Evolution of the Formal Structure of Separate  
Schools in the Prairie Provinces." Unpublished  
Doctor's dissertation, The University of Alberta,  
Edmonton.
- Fuchs, Oswald.  
1943. "Notes on Alberta's Educational System." An  
Extract from Culture, pp. 504-511.
- Gill, Norman.  
1967. "The Relationship Between the Size of School  
Systems and Certain Characteristics of Their  
Administrative Staff." Unpublished Master's  
thesis, The University of Alberta, Edmonton.
- Gilles, J. W.  
1942. "School Divisions in Alberta: Their Organization,  
Operation and Contribution to Educational  
Progress." Unpublished Master's thesis, The  
University of Alberta, Edmonton.
- Gregory, David M.  
1972. "The Relationship Between In-school Administrative  
and Support Staff Positions, Ratios and Costs in  
the Public and Separate School Districts of  
Edmonton and Calgary." Unpublished Master's  
thesis, The University of Alberta, Edmonton.
- Haas, Eugene J., Richard H. Hall, and Norman J. Johnson.  
1963. "The Size of the Supportive Component in  
Organizations: A Multi-Organizational Analysis."  
Social Forces, 42:9-17.
- Haire, Mason.  
1959. Modern Organizational Theory. New York: Wiley  
and Sons.
- Hall, Richard H., Eugene J. Hass, and Norman J. Johnson.  
1967. "Organizational Size, Complexity and  
Formalization." American Sociological Review,  
32:903-912.



- Hambly, J. R. S.  
1959. "A Survey of County Schools." Unpublished Doctor's dissertation, The University of Toronto, Toronto.
- Hawley, Amos H., Walter Bowlan, and Margaret Bowlan.  
1965. "Population, Size and Administration in Institutions of Higher Education." American Sociological Review, 30:252-255.
- Holdaway, Edward A.  
1971. "Staffing Metropolitan School Districts." The Canadian Administrator, 10:29-33.
- Indik, Bernard P.  
1964. "The Relationship Between Organizational Size and Supervision Ratio." Administrative Science Quarterly, 9:301-312.
- Jonason, Jonas C.  
1951. "The Large Units of School Administration in Alberta." Unpublished Doctor's dissertation, The University of Oregon, Oregon.
- Lepatski, William  
1970. "Staffing Ratios and Costs in Metropolitan School Systems in Western Canada." Unpublished Master's thesis, The University of Alberta, Edmonton.
- Lieberman, Myron.  
1960. The Future of Public Education. Chicago: University of Chicago Press.
- Loken, G.  
1970. "Perspectives on Change in Educational Structures in Alberta." In J. J. Bergen and J. M. Small, eds., Educational Administration 261: Selected Readings. New York: Simon and Schuster.
- Melman, S.  
1951. "The Rise of Administrative Overhead in the Manufacturing Industries in the United States, 1899-1947." Oxford Economic Papers, 3:62-122.
- Morphet, Edgar L., Roe L. Johns, and Theodore L. Reller.  
1967. Educational Organization and Administration. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Morphet, Edgar L., and John G. Ross.  
1961. "Local Responsibility for Education in Small School Districts." Reported in Morphet, and others, Educational Organization and Administration. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.



Olivero, James, L., and Edward G. Buffie.

1970. Educational Manpower. Bloomington: Indiana University Press.

Parkinson, C. Northcotte.

1964. Parkinson's Law. New York: Ballantine Books.

Reiss, William.

1970. Organizational Complexity: The Relationship Between the Size of the Administrative Component and the School System Size. Oregon University, Eugene Center for Advanced Study in Educational Administration. E.D.R.S., ED 043974.

Rushing, William A.

1966. "Organizational Size and Administration: The Problems of Causal Homogeneity and a Heterogeneous Category." Pacific Sociological Review, 9:100-108.

1967. "The Effects of Industry Size and Division of Labor on Administration." Administrative Science Quarterly, 12:273-295.

Sparby, Harold T.

1960. "The Administrative Staff in A Growing School System." Administrative Staff Organizations in Urban School Systems. Edmonton: Department of Educational Administration, The University of Alberta, 59-75.

Swift, W. H.

1970. "Information Regarding Separate School Districts." In J. J. Bergen and J. M. Small, eds., Educational Administration 261: Selected Readings. New York: Simon and Schuster.

Terrien, Frederick W., and Donald L. Mills.

1955. "The Effect of Changing Size Upon the Internal Structure of Organizations." American Sociological Review, 20:11-13.

The Legislative Assembly of Alberta.

1970. The School Act, 1970. Edmonton: Queen's Printer.

Tosi, Henry, and Henry Patt.

1967. "Administrative Ratios and Organizational Size." Academy of Management Journal, 10:161-168.

Vithayathil, Kuruvilla A.

1969. "Administrative Ratio and Threshold Size of Administrative Offices in Alberta School Systems." Unpublished Master's thesis, The University of Alberta, Edmonton.







## APPENDIX A

### INSTRUMENTS USED FOR COLLECTING DATA





Executive Building, 10105 - 109 Street, Edmonton, Alberta

Telephone: 229-3517 AC403, TELEX: ALTAEDCOMM, TWX: ED ADMIN EDM

September 23, 1971

On July 19, 1971 the Minister of Education announced that a study would be conducted, entitled "An Examination of Non-Instructional Positions, Functions and Costs in School Jurisdictions in Alberta".

The Director of the study is Dr. E. A. Holdaway, Associate Professor, Department of Educational Administration, University of Alberta. He is being assisted by the following Supervisory Committee:

- 1) Dr. J. E. Reid, Director of Operational Research,  
Department of Education.
- 2) Dr. B. T. Keeler, Executive Secretary, Alberta  
Teachers' Association.
- 3) Mr. L. Williams, Executive Secretary, Alberta School  
Trustees' Association.

Four major methods will be used to collect the data and opinions upon which Dr. Holdaway will make recommendations concerning non-instructional staffing in school jurisdictions of different size and type.

.....



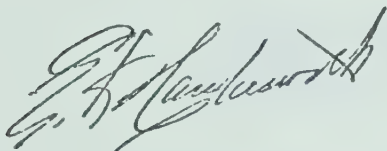
Page 2 . . .

. . . September 23, 1971

1. Central office questionnaire to be completed by all superintendents (enclosed).
2. In-school staff questionnaire concerning opinions related to adequacy of numbers of non-instructional staff--a sample of about 1,000 will be used.
3. Interviews with a sample of central office and in-school staff throughout Alberta concerning use of non-instructional staff--these will be conducted by Dr. Holdaway and Mr. Thomas Blowers, a doctoral student in Educational Administration.
4. Questionnaire to all school trustees concerning opinions related to adequacy of numbers of staff.

Your assistance is requested in completing the enclosed questionnaire. The data should describe the situation in your district for the month of September, 1971. I appreciate the amount of work involved in completing the questionnaire, but hope that you will be able to return it to Dr. Reid by November 1, 1971. The Minister expects a preliminary report in February, 1972.

Yours very truly,



E. K. Hawkesworth  
Associate Deputy Minister of Education

EKH/eik

Enclosure



SCHOOL SYSTEM PERSONNEL QUESTIONNAIRE

Name of school system: \_\_\_\_\_

Province: Alberta \_\_\_\_\_ British Columbia \_\_\_\_\_

PLEASE NOTE:

1. This questionnaire is divided into two sections as follows:

SECTION A - concerns numbers, positions, and salaries of  
central office personnel only;

SECTION B - concerns numbers, positions, and salaries of  
in-school personnel only.

2. Please read through both sections before completing the questionnaire.
3. Please provide the requested data for the month of September, 1971, or as of October 1, 1971, whichever is appropriate.
4. Please report numbers of all personnel in full-time equivalents.

Return to:

Dr. J.E. Reid  
Director of Operations Research  
Devonian Building  
Jasper Avenue and 112 Street  
Edmonton, Alberta





SECTION A: CENTRAL OFFICE PERSONNEL

PART I: POSITIONS, NUMBERS, AND SALARIES OF ADMINISTRATIVE AND SUPERVISORY PERSONNEL LOCATED IN THE CENTRAL OFFICE

INSTRUCTIONS: State in Column B the number of central office personnel in each position listed in Column A. In Column C state the total gross salaries paid to all personnel in each position for the month of September 1971.

Column A	Column B	Column C	Column D
ADMINISTRATIVE AND SUPERVISORY POSITIONS	TOTAL NUMBER OF PERSONNEL IN EACH POSITION	GROSS SALARIES FOR SEPTEMBER OF ALL PERSONNEL IN EACH POSITION	NUMBER OF PERSONNEL IN EACH POSITION WITH A TEACHING CERTIFICATE
Superintendent			
Assistant, Associate, Deputy, and/or Area Superintendents			
Administrative Assistants			
Secretary-Treasurer, Assistant Secretary-Treasurer			
Directors and Assistant Directors of Instruction, Curriculum Officers			
Subject Supervisors, Consultants, Coordinators, and/or Specialists			
Directors of Pupil Personnel Services, Guidance, and/or Special Education			
Directors and Supervisors of Library, Instructional Materials Centre, and/or Educational Television			
Adult Education and/or Extension Services Officers			



PART 1 CONTINUED: POSITIONS, NUMBERS, AND SALARIES OF ADMINISTRATIVE AND SUPERVISORY PERSONNEL LOCATED IN THE CENTRAL OFFICE

Column A	Column B	Column C	Column D
ADMINISTRATIVE AND SUPERVISORY POSITIONS	TOTAL NUMBER OF PERSONNEL IN EACH POSITION	GROSS SALARIES FOR SEPTEMBER OF ALL PERSONNEL IN EACH POSITION	NUMBER OF PERSONNEL IN EACH POSITION WITH A TEACHING CERTIFICATE
Directors and Supervisors of Buildings, Maintenance, and Operations			
Architects, Engineers			
Directors of Planning, Construction and/or Design			
Urban Planners			
Facilities and Maintenance Coordinators			
Building Inspectors			
Personnel and Staffing Officers			
Staff Development Officers			
Directors and Supervisors of Computer Operations and/or Information Systems			
Systems Programmer/Analysts, Computer Programmer/Analysts			
Information and Public Relations Officers			
Research and Development Officers			
Directors of Accounting, Accountants			
Director of Purchasing and Stores			



PART 1 CONTINUED: POSITIONS, NUMBERS, AND SALARIES OF ADMINISTRATIVE AND SUPERVISORY PERSONNEL LOCATED IN THE CENTRAL OFFICE

[illegible]







PART 2: POSITIONS, NUMBERS, AND SALARIES OF PUPIL-ORIENTED, PROFESSIONAL, CONSULTATIVE PERSONNEL LOCATED IN THE CENTRAL OFFICE

INSTRUCTIONS: State in Column B the number of central office personnel in your school system in each of the positions listed in Column A. In Column C state the total gross salaries paid to all personnel in each position in Column A for the month of September, 1971.

Column A	Column B	Column C	Column D
PUPIL-ORIENTED, PROFESSIONAL, CONSULTATIVE POSITIONS	TOTAL NUMBER OF PERSONNEL IN EACH POSITION IN FULL-TIME EQUIVALENTS	GROSS SALARIES FOR SEPTEMBER OF ALL PERSONNEL IN EACH POSITION IN COLUMN A	NUMBER OF PERSONNEL IN EACH POSITION WITH A TEACHING CERTIFICATE
Psychometricians			
Psychologists			
Psychiatrists			
Medical Consultants			
Social Workers			
Speech Therapists			
Remedial Specialists			
Reading Clinicians/Specialists			
Guidance Counsellors			
Other (Please specify)			



PART 3: POSITIONS, NUMBERS, AND SALARIES OF SUPPORT STAFF LOCATED IN THE CENTRAL OFFICE

INSTRUCTIONS: State in Column B the number of central office support personnel in each position listed in Column A. In Column C state the total gross salaries of all personnel in each position for the month of September, 1971.

Column A	Column B	Column C
NAMES OF SUPPORT STAFF POSITIONS	NUMBER OF PERSONNEL IN EACH POSITION IN FULL-TIME EQUIVALENTS	GROSS SALARIES FOR SEPTEMBER OF ALL PERSONNEL IN EACH POSITION
Secretarial Personnel (Secretary, Stenographer, and/or Typist)		
Clerical Personnel (Chief Clerk, Payroll Clerk, Other Clerical Personnel)		
Instructional Materials Centre Personnel (Those involved in the construction, cataloguing, and/or issuing of audio-visual aids.		
Plant Operation and Maintenance Personnel (Please include carpenters, electricians, painters who maintain schools).		
Transportation Personnel (Including Drivers and Chauffeurs).		
Warehouse worker, storekeeper		
Computer operator		
Keypunch operator		
Switchboard operator		
Graphic Artist		
Draftsman		



PART 3 CONTINUED: POSITIONS, NUMBERS, AND SALARIES OF SUPPORT STAFF LOCATED IN THE CENTRAL OFFICE

[illegible]





## SECTION B: IN-SCHOOL PERSONNEL

PART 1: POSITIONS, NUMBERS, AND SALARIES OF ADMINISTRATIVE AND SUPERVISORY PERSONNEL LOCATED IN SCHOOLSINSTRUCTIONS:

- Column A In this column are listed several administrative and supervisory positions.
- Column B State the number of personnel in each position in your school system.
- Column C Provide an estimate of the average percentage of working time allotted to each position for administrative and supervisory purposes only.
- Column D State the total salaries (excluding administrative and supervisory allowances) paid to all personnel in each administrative or supervisory position listed in Column A, for the month of September, 1971.
- Column E State the total administrative and supervisory allowance paid to personnel in the respective administrative category for the month of September, 1971. If no such allowance is granted, please leave the space blank.
- Column F State the total gross salaries paid to all personnel in each administrative or supervisory position listed in Column A for the month of September, 1971.
- NOTE - Please do not include as administrative and supervisory positions those of counsellors, librarians, transportation or cafeteria personnel.

Column A	Column B	Column C	Column D	Column E	Column F
ADMINISTRATIVE AND SUPERVISORY POSITIONS	TOTAL NUMBER IN SCHOOL SYSTEM	ESTIMATED AVERAGE PERCENTAGE OF TIME SPENT IN ADMINISTRATION AND STAFF SUPERVISION	TOTAL SEPTEMBER SALARY OF ALL IN EACH POSITION (EXCLUDING ADMINISTRATIVE AND SUPERVISORY ALLOWANCES)	TOTAL SEPTEMBER ADMINISTRATIVE AND SUPERVISORY ALLOWANCE	SEPTEMBER GROSS SALARY (TOTAL COLUMN D AND E)
1. ELEMENTARY SCHOOLS					
Principal					
Assistant or Vice-Principal					
Department head, Coordinator, Curricular Associate, etc., (and Assistants in these positions)					
Other (Please specify)					





PART 1 CONTINUED: POSITIONS, NUMBERS, AND SALARIES OF ADMINISTRATIVE AND SUPERVISORY PERSONNEL LOCATED IN SCHOOLS

Column A	Column B	Column C	Column D	Column E	Column F
ADMINISTRATIVE AND SUPERVISORY POSITIONS	TOTAL NUMBER IN SCHOOL SYSTEM	ESTIMATED AVERAGE PERCENTAGE OF TIME SPENT IN ADMINISTRATION AND STAFF SUPERVISION	TOTAL SEPTEMBER SALARY OF ALL IN EACH POSITION (EXCLUDING ADMINISTRATIVE AND SUPERVISORY ALLOWANCES)	TOTAL SEPTEMBER ADMINISTRATIVE AND SUPERVISORY ALLOWANCE	SEPTEMBER GROSS SALARY (TOTAL COLUMN D AND E)

2. JUNIOR HIGH

Principal					
Assistant or Vice-Principal					
Department head, Coordinator, Curricular Associate, etc., (and Assistants in these positions)					
Other (Please specify)					

3. SENIOR HIGH

Principal					
Assistant or Vice-Principal					
Department head, Coordinator, Curricular Associate, etc., (and Assistants in these positions)					
Other (Please specify)					



PART 1 CONTINUED: POSITIONS, NUMBERS, AND SALARIES OF ADMINISTRATIVE AND SUPERVISORY PERSONNEL LOCATED IN SCHOOLS

Column A	Column B	Column C	Column D	Column E	Column F
ADMINISTRATIVE AND SUPERVISORY POSITIONS	TOTAL NUMBER IN SCHOOL SYSTEM	ESTIMATED AVERAGE PERCENTAGE OF TIME SPENT IN ADMINISTRATION AND STAFF SUPERVISION	TOTAL SEPTEMBER SALARY OF ALL IN EACH POSITION (EXCLUDING ADMINISTRATIVE AND SUPERVISORY ALLOWANCES)	TOTAL SEPTEMBER ADMINISTRATIVE AND SUPERVISORY ALLOWANCE	SEPTEMBER GROSS SALARY (TOTAL COLUMN D AND E)

4. ELEMENTARY-JUNIOR HIGH

Principal					
Assistant or Vice-Principal					
Department head, Coordinator, Curricular Associate, etc., (and Assistants in these positions)					
Other (Please specify)					

5. JUNIOR-SENIOR HIGH

Principal					
Assistant or Vice-Principal					
Department head, Coordinator, Curricular Associate, etc., (and Assistants in these positions)					
Other (Please specify)					



[illegible]







## PART 2: POSITIONS, NUMBERS, AND SALARIES OF SUPPORT STAFF LOCATED IN SCHOOLS

INSTRUCTIONS: State in Column B the number of in-school support personnel in each position in Column A. In Column C state the total gross salaries of all personnel in each position for the month of September, 1971.

[illegible]



PART 3: NUMBERS, POSITIONS, AND SALARIES OF PUPIL-ORIENTED STAFF LOCATED IN SCHOOLS

NAMES OF PUPIL-ORIENTED POSITIONS IN SCHOOLS	TOTAL NUMBER IN ALL SCHOOLS IN FULL-TIME EQUIVALENTS	GROSS SALARIES FOR SEPTEMBER OF ALL PERSONNEL IN EACH POSITION
Guidance Counsellors		
Social Workers		
Psychologists		
Librarians		
Reading Specialists		
Classroom Teachers (not identified in any of the above categories)		
Other (Please specify)		

- (1) Indicate the number of personnel listed directly above who are based in one school, but work in more than one school \_\_\_\_\_ .
- (2) Indicate the estimated average percentage of time these personnel spend working in schools other than the one in which they are based \_\_\_\_\_ .



**PART 4: TOTAL NUMBERS OF SCHOOLS AND STUDENTS**

**INSTRUCTIONS:** List the total number of pupils and schools in your school system in each of the categories below. Do not include students attending evening or Saturday classes.

TOTAL NUMBER OF PUPILS			
Grades	1-6	7-9	10-12

TOTAL NUMBER OF SCHOOLS						
G 1-6	G 7-9	G 10-12	G 1-9	G 7-12	G 1-12	Other (Specify)

**PART 5: APPROXIMATE AREA OF SCHOOL SYSTEM IN SQUARE MILES**

\_\_\_\_\_ sq. ml.

**PART 6: TEACHER QUALIFICATIONS**

**INSTRUCTIONS:** List the number of in-school personnel in each category in your school system who hold a teaching certificate (include all principals, vice-principals, consultants, coordinators, teachers, etc. who hold a teaching certificate). Report the number of years of training as you use them for salary purposes.

NUMBER OF YEARS OF PROFESSIONAL AND ACADEMIC PREPARATION BEYOND HIGH SCHOOL	TOTAL NUMBER OF PERSONNEL IN EACH CATEGORY
Less than 1 year	
1 Year	
2 Years	
3 Years	
4 Years	
5 Years	
6 or more Years	



PART 7: NUMBERS AND HONORARIA OF SCHOOL BOARD MEMBERS

INSTRUCTIONS: Please provide the following information:

- A. The total number of school board members \_\_\_\_\_
- B. The total gross annual honoraria/salaries  
of all school board members \_\_\_\_\_

PART 8: SCHOOL SYSTEM ORGANIZATION

PLEASE PROVIDE A COPY OF THE ORGANIZATION CHART OF YOUR SCHOOL SYSTEM.

PART 9: SALARY AGREEMENTS

PLEASE PROVIDE A COPY OF THE CURRENT SALARY AGREEMENT FOR THE INSTRUCTIONAL  
AND ADMINISTRATIVE STAFF FOR YOUR SCHOOL SYSTEM.

- - - - -

THANK YOU VERY MUCH FOR YOUR COOPERATION





APPENDIX B

PUBLIC AND SEPARATE JURISDICTIONS IN ALBERTA



## APPENDIX B

### COUNTY JURISDICTIONS IN ALBERTA

Those used in the study were:

Grande Prairie	Paintearth
Vulcan	St. Paul
Ponoka	Strathcona
Newell	Two Hills
Warner	Camrose
Stettler	Red Deer
Thorhild	Vermilion River
Forty Mile	Leduc
Beaver	Lethbridge
Wetaskiwin	Minburn
Barrhead	Lac St. Anne
Athabasca	Flagstaff
Smoky Lake	Lamont
Lacombe	Parkland
Wheatland	

No reply was received from the County of Mountainview.

### DIVISION JURISDICTIONS IN ALBERTA

Those included in the study were:

Berry Creek	Provost
Cardston	Westlock
Medicine Hat	Foothills
Taber	Calgary
Acadia	Bonnyville
Sullivan Lake	Spirit River
Peace River	High Prairie
Yellowhead	Fairview
Rocky Mountain	Lac La Biche
Neutral Hills	Fort Vermilion
Sturgeon	East Smoky
Willow Creek	Three Hills
Pincher Creek	Drumheller Valley
Starland	Crowsnest Pass
Wainwright	



The only division not included in this study was Northland School Division.

# PUBLIC SCHOOL DISTRICT JURISDICTIONS

## IN ALBERTA

Those included in the study were:

Lethbridge	St. Albert
Grande Prairie	Bonnyville
Red Deer	Medicine Hat
Camrose	Devon
Wetaskiwin	Stirling
St. Paul	Brooks
Legal	Stettler
Thibault	Hanna

No reply was received from:

Redcliff  
Grovedale

The public school districts not included in this study were:

Fort McMurray	Canmore
Calgary	Exshaw
Edmonton	Nordegg
Jasper	Seebee
Banff	Waterton Park
Swan Hills	Grande Cache

# SEPARATE SCHOOL DISTRICT JURISDICTIONS

## IN ALBERTA

Those included in the study were:

Lethbridge	Grand Centre
Picture Butte	Medicine Hat
Coaldale	McLennan
Beaver Lodge	High Prairie
Grande Prairie	Spirit River
Sexsmith	Drayton Valley
Red Deer	Ponoka
Fort Saskatchewan	Whitecourt





Salisbury  
 Camrose  
 Wetaskiwin  
 Glen Avon  
 St. Albert  
 Rosary  
 Grimshaw  
 Peace River  
 Nampa  
 Cold Lake  
 Wainwright  
 Valleyview  
 Drumheller Valley

Assumption  
 Provost  
 Killam  
 Vermilion  
 St. Martin's  
 St. Rita's  
 Bow Island  
 Theresetta  
 Taber  
 Westlock  
 Fort Vermilion  
 St. Thomas More  
 St. Michael's

No reply was received from the Raymond Separate District.

The separate school districts not included in this study were:

Fort McMurray  
 Calgary  
 Edmonton

#### CONSOLIDATED DISTRICTS IN ALBERTA

Those used in the study were:

Barons  
 Lausana  
 Falher















**B30032**